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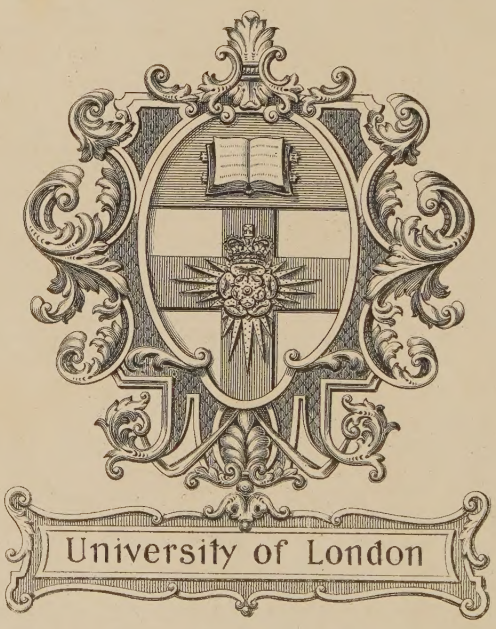

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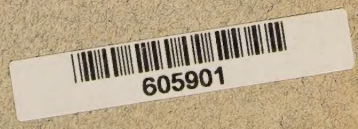
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RETURN to an Order of the Honourable The House of Commons, dated 26 June 1865;—*for*,

A COPY

OF THE

STATISTICAL REPORT

OF THE

HEALTH OF THE NAVY,

FOR THE YEAR 1862.

(*Mr. Childers.*)

Ordered, by The House of Commons, *to be Printed*, 26 *June* 1865.

PRELIMINARY OBSERVATIONS.

In the Statistical Report of the Health of the Navy for the year 1860 it was observed that, in so far as these Returns are concerned, "a high rate of sickness does not necessarily imply a high rate of mortality; in fact, the one bears but little relation to the other." It is necessary occasionally to advert to this observation, as by failing to give it due prominence it is apt to be overlooked, and an erroneous and unfavourable impression may, in consequence, be formed with respect to the sanitary condition of the service. As there is no sphere in life in which more ready and immediate access to medical advice can be had than in the Royal Navy, so, in some measure probably, in consequence, there is no service in which men are excused from duty for apparently more trivial causes. The duties of the man-of-war's man, however, involve so constant a demand upon physical exertion, and are in consequence so entirely opposed to all the requirements of the healing art, that it is absolutely necessary to pay much more attention to trifling ailments and injuries than their own immediate importance would seem to call for, in order to obviate the risk of their almost certain aggravation. Hence it will be found that a very large proportion indeed of the sick-rate in the Royal Navy is derived from boils, abscesses, ulcers, and injuries of a more or less trivial nature, and from simple catarrhs and sore throat, and that the ratio of sickness from disease properly so called is in reality very small.

And so with reference to the ratio of mortality, much misapprehension may readily be occasioned by accepting the average death-rate of the Total Force as the expression of the normal rate of the service itself. But this is by no means the case. In order to ascertain what may be considered the rate of mortality in the service, as a service, it is necessary to eliminate from the Tables all those disturbing elements which exist only in virtue of the accidental duties in which the different squadrons may have been employed. Thus casualties and their equivalents must be entirely excluded from all such observations. In the period, for example, embraced in the present Report, the ratio of mortality for the Total Force was 15·3 per 1,000 of mean force. This is a larger ratio, evidently, than ought to exist amongst a class of selected men, such as the seamen of Her Majesty's Service are supposed to be. But if deaths from casualties are excluded, and deaths from cholera and yellow fever, which may be said to be typical examples of their equivalents in the shape of disease, then the death-rate will be found to be only 9·6.

It is exceedingly difficult to institute any comparison between the naval service and any condition in civil life, which would prove practically useful for statistical purposes; but in order to give a value to these figures it may be well to show how they stand with reference to other ascertained ratios of mortality amongst the general population. In the 24th Table of the Supplement to the 25th Annual Report of the Registrar General for England, the ratio of mortality in different trades and occupations at certain ages is given; and it will be observed that between the ages of 15 and 45, which may be looked upon as the fair boundaries of a seaman's life, agricultural labourers, shepherds, navvies, &c., those in fact who are principally engaged in out-door avocations, constitute the most healthy class, and that amongst them the ratio of mortality is 9·1 per 1,000. Now if the 9·6 of ratio of mortality amongst the seamen is placed in juxta-position with the 9·1 death-rate of the very healthiest class of operatives in England, the difference is certainly not great. It must be conceded, however, that there are certain circumstances

stances connected with the economy of the naval service which appear to give it a great advantage over any condition in civil life, in enabling it to reduce its death-rate from disease, and one of the most obvious of these is the power of invaliding and discharging diseased men from the service before the fatal event shall have added them to the bills of mortality. But here again the advantage is much more apparent than real, for in point of fact the vast majority of invalided men labour under diseases of by no means a fatal nature, and very many of them re-enter the service. The sequelæ of fever, epilepsy, functional derangement of the action of the heart, rheumatism, syphilis, dyspepsia, and hernia, none of them fatal diseases, are the most fruitful sources of invaliding in the service; phthisis, the most fatal disease for which men are so disposed of, constituting only about a sixth part of the total ratio of invaliding, and a seventh part of the death-rate.

The other conditions connected with the naval service which tend to reduce its death-rate, and which interfere with any just comparison between it and the class of men to which reference has been made, are derived from the organisation and discipline of the service itself, and have reference to the care that is taken in the selection of men at their entry into it; the compulsory regularity of their lives on board ship after their admission; the regularity of their meal hours; the quality and quantity of the food with which they are supplied; the attention that is paid to their habits as regards cleanliness; the care with which their very clothing is looked after, and its use even regulated according to temperature and climate; the constant regard that is paid to all the sanitary conditions by which they are surrounded; and lastly, but certainly not least, the facilities they have for obtaining medical advice and assistance on the very earliest indications of approaching sickness. It is undoubtedly to these sources that the comparatively small sick and death rates in the service may be referred, and there can be little question that in these respects it holds a very favourable position when compared with any sphere in civil life.

But it is to be observed that these advantages possessed by the service, and tending undoubtedly to reduce the ratios of sickness and mortality in it, are counterbalanced by the many disadvantages under which the seaman labours when compared with the man who follows a quiet, though it may be a laborious occupation on shore, and in his own native country. The seaman's life is often one of great hardship, and of exposure to vicissitudes of weather by day and night, and in the ordinary course of service much of it may be passed in climates most inimical to the European constitution. But for the unceasing care with which every circumstance opposed to his health is watched, and as far as possible provided for, it is impossible but that great sickness and mortality should result from such services as he is called upon to engage in in the various rivers on the Coast of Africa, in the Mozambique Channel, and on the Coast of China; and it surely speaks well for the service that in the face of these prolific sources of disease and death, the ratio of mortality should only be fractionally greater than amongst the healthiest class of operatives in England. For it is especially to be remarked that in accepting 9·6 as the death-rate per 1,000 of mean force, the only casualties that have been excluded from the returns are wounds and injuries, and yellow fever and cholera; had notice been taken of the other deaths, which are clearly due to the special nature of the service upon which the men were employed, it would be easy to show that the death-rate in the Total Force was under 7· per 1,000. On the Pacific, Cape of Good Hope and Australian Stations, by excluding deaths by violence alone, the ratio of mortality per 1,000 of mean force was in the former only 5·8, and on each of the two latter, 4·3.

It is painful to reflect that on the very threshold of his entry into the service, and in the seaport towns of his own country, the seaman should have hitherto been left exposed to such a mass of festering disease, as renders these localities more destructive to health than the most pestilential rivers of Africa; partial measures have happily at length been devised to mitigate this evil, but it is to be hoped

the

the day is not far distant when effectual steps shall be taken to remove to the utmost this foul scandal from the nation.

Maps showing the boundaries of the different stations have been introduced into the present Report, and will it is hoped prove useful.

Alex. E. Mackay, M.D.

Admiralty, Somerset House,
25 August 1865.

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ERRATA.

Page 28, line 10, for " ninety-six," read " ninety-seven."

„ 28, line 12, for " 9·6," read " 9·7."

„ 29, line 13, for " twenty," read " twenty-one."

„ 72, line 9, for " 10,225," read " 10,135."

„ 115, last line of Table, for Total there given, read

185,565	22,140	207,705	569·	56·1

„ 139, line 7, for " 225," read " 239."

„ 139, line 7, for " 2,482," read " 2,533."

HOME STATION.

In the year 1862 there were sixty-two vessels of various sizes and denominations connected with the five different commands comprised in the Home Station. The mean force corrected for time was 20,760 men, and the total number of cases of disease and injury under treatment, was 23,641. Of these 640 were invalided, and 173 died; the former being in the ratio of 30·8, and the latter of 8·2 per 1,000 of mean force. The ratio of cases was 1138·8 per 1,000, which is an increase as compared with the previous year, but there is a slight reduction in the ratios of invaliding and of death.

Home Station.

It appears by Table 2, that the number of men daily sick on board ship was about 637, and in hospital 365·5; making the total daily loss of service from sickness equal to about 1,002 men, or in the ratio of 48·2 per 1,000 of mean force, which is almost precisely the same ratio as obtained in the previous year.

The daily loss of service from primary fever was equal to about sixteen men; from ague rather more than three men, and from eruptive fevers between two and three. Diseases of the brain and nervous system entailed a loss of service equal to about fifteen men per diem, which is a great decrease as compared with the preceding year. There was a daily loss of service equal to 125 men, from diseases of the organs of respiration; nearly twenty-seven of whom were unfortunately labouring under phthisical disease. The loss of service per diem from affections of the organs of circulation equalled about twenty men; from diseases of the alimentary canal, sixteen; and of the liver and spleen, four. The number

Home Station.

daily sick from diseases of the genito-urinary organs was 267, of whom 257 were labouring under venereal affections, or in the ratio of 12·3 per 1,000, which is very nearly the same as in 1861, a year exceptionally high as regards these diseases. From rheumatism, gout, and diseases of the bones and joints, the loss of service daily was equal to about eighty men; from diseases of the special senses, fourteen; from diseases of the skin and cellular tissue, 271; from dyspepsia and debility, twenty-two; from dropsy, four; and from wounds and injuries of various kinds, 136.

The returns from the different vessels are for periods varying from two months to twelve, and the daily ratio per 1,000 of sickness in each ship was from 6·6 to 76·9. These figures, however, only relate to those sick on board.

Fevers.—There were 295 cases of primary fever altogether under treatment, of which ten had a fatal termination. The vessels in which these affections prevailed most, were the Britannia, the Trafalgar, and the Victory.

In last year's statistical Report of the Health of the Navy, it was remarked that for several years fever of a typhoid type had prevailed on board the Britannia, chiefly amongst the cadets, between the months of October and March; and it was shown that there were reasons for qualifying, at least, the opinion entertained by some that these fevers were altogether caused by the emanations from the mud and sewer drains which empty themselves into the Haslar and Gosport creeks, off which this vessel was moored. In order, however, to remove any possible risk from such a cause, the ship was removed from Portsmouth to Portland, in the month of February of this year, and anchored at a distance of 600 yards from the shore, in a locality where there was neither mud nor sewerage near the vessel. From the date of her arrival at Portland, until the month of October, the febrile cases that appeared on board were of the ephemeral character so commonly met with in the summer months, and they occasioned no anxiety. On the 29th of September, however, a young gentleman was placed on the sick list with what was at the time considered to be merely a feverish cold; but as he did not improve, he was sent on shore to sick quarters, where on the 17th of October the specific rose-coloured rash of enteric fever was noticed on his abdomen. He had a protracted convalescence, and had to be sent home on sick leave.

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leave, after being forty days under treatment. Between the 3d of October, the date of this young gentleman's being sent on shore to sick quarters, and the 29th of November, eleven cases of fever occurred amongst the cadets, the majority of which were of an urgent nature, keeping the patients on an average thirty days under treatment. The character of this fever is thus given by the surgeon* in charge of the cadet's sick quarters:—"The first case of fever was brought here on the 3d of October, and, as in the majority of the cases afterwards brought, was accompanied with sternal pains, slight cough, abdominal tenderness, more especially over the right iliac fossa, some headache, hot dry skin with urgent thirst. The urine was very scanty, ropy, and high coloured; the motions were liquid and dark, frequent and offensive; occasionally they were of a bright ochre colour. There was epistaxis, and petechiæ on the chest and abdomen. The first case received was the most severe of all the cases, the symptoms in the majority, however, being much alike, but milder in character. Five of the number had well-marked petechiæ; and in the last of the cases, in addition to these spots, there was a large blotch of effused blood a little way above the left ankle. Two of the cases also were attended with pneumonic symptoms. From the commencement of the attack, until the skin began to show symptoms of action, was a period extending from nine to ten days in the more severe, and from six to seven in the milder cases. In all the prostration was very remarkable, requiring support and much attention throughout." This was unquestionably a very grave form of fever, and singular to say, it was entirely confined to the naval cadets, none of the crew of the ship being affected in the least degree, unless a case of ephemeral fever occurring at this time in a boy, and confining him for two days to the sick list, is to be considered as belonging to the same category. The surgeon of the Britannia† is at a loss to understand why these febrile attacks should have again occurred this autumn. He says—"There was no sickness on shore, and no sewerage abreast of the ship to cause any offensive odours. The holds, bilges and every part of the ship are as dry and as sweet as it is possible to keep them; and for a ship the ventilation is good, and the decks not too much wetted."

The

* Dr. J. T. U. Bremner.
† Dr. W. McK. Saunders.

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The difficulty, however, of ascertaining the exact source from whence the first case in any epidemic contracted the disease, is in the vast majority of instances very great indeed ; and on board ship, especially, its attainment is often impossible. With respect to this particular fever, observation has shown, 1st. That sewer emanations under certain circumstances are frequently the source of it ; 2d. That it may be communicated (although not highly infectious) from one person to another ; 3d. That it is peculiarly prevalent in the autumnal and early winter months ; and 4th. That it is essentially a disease of youth and early manhood, the per-centage of cases throughout this country being much greater between the ages of fifteen and twenty than at any other period of life. In such a vessel, then, as the Britannia, which is nothing more than a school where about 220 boys are residing within very narrow limits, it is not to be wondered at that fevers of a communicable nature should be liable to spread on being introduced on board ; and seeing that there was no sewage at Portland to account for the disease, and nothing in the vessel itself to cause it, the conclusion appears inevitable that it was imported on board, and spread to a few of the cadets in the mysterious manner so common to these fevers.

Forty-one cases of primary fever appear in the returns from the Trafalgar, but thirty-three of these were contracted in the last quarter of the year, after the vessel had arrived in the Mediterranean, which she did in the month of November, so that they cannot with propriety be charged to the Home Station. During the first three quarters of the year the Trafalgar was attached to the Channel Fleet ; in the first quarter she lay at Spithead ; in the second quarter she visited with the other vessels of the Channel squadron the Ports of Portland, Great Yarmouth, Deal and Milford Haven ; and in the third quarter she was in the Baltic, where, in company with the fleet, she visited various ports. The cases of fever that occurred during the time were for the most part not of much importance, although in one or two instances they were aggravated by becoming complicated with pneumonia.

The majority of the cases of fever in the Victory were not of much moment. Two cases, however, were of great severity, and terminated in death. In both instances the patients were officers ; in one the disease was enteric fever, in the other it was complicated with disease of the kidneys. In this

this last case there was suppression of urine to a great extent, and what little was voided was albuminous.

Thirteen cases of primary fever, and nineteen of ague, appear in the Returns of the Cumberland, the guard ship of the steam reserve at Sheerness. The surgeon * of the Cumberland is of opinion that, so far as the service afloat is concerned, many of the cases returned as ague, and referred to malarial exhalations from the marsh lands of Sheppey, and the neighbourhood of the Medway, might with more propriety be attributed to other causes. He says, "At an early period of my service in the Sheerness steam-ordinary, now the steam reserve, I felt convinced of the necessity of closely watching and faithfully reporting the various cases of illness, so as to exclude from the list of 'fevers' those numerous cases of temporarily disordered function from habits of intemperance. I could not fail to observe that, wittingly or unwittingly, the men were ever ready to declare on such occasions that they had ague, when the chilliness they experienced, if they felt chilly at all, was simply the result of a debauch, with slight cold in some cases superadded. Some, perhaps, believed what they stated, but many, I felt persuaded, knowingly tried to conceal their irregularities under the convenient cloak of the well-known local endemic, and not a few made a pretence of being ill to get out of an uncomfortable position. The readiness with which they declared themselves the victims of ague raised my suspicions in the first instance, and experience, I am bound to say, confirmed my suspicions in the great majority of instances. . . . . That fevers of remittent and intermittent types are endemic, and prevail largely at Sheerness, there is no doubt. But my experience, so far as it goes, is opposed to the belief that they commonly prevail on board ships in the Medway, or that the position of the ships high up or low down makes any difference in the health of the crew. The ships stationed in Stangate Creek are surrounded by marsh land, and as completely shut in from sea-breeze as any vessels can be, and yet I do not find that the men sleeping on board those ships become more obnoxious to the epidemic influence than the men on board the head-quarter ship off Sheerness. But I have found men present themselves more frequently from the ships in the reserve

* Dr. W. Loney.

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reserve than on board the Cumberland, complaining of ague, who on being given to understand that they must be seen in a paroxysm before they could be entered on the list for ague, very soon returned to their duty without ever giving any proof of previous illness to support their statements."

Eruptive Fevers.—There were eight cases of small-pox, twenty-seven of scarlatina, and nineteen of measles. One case of scarlatina proved fatal.

Of the eight cases of small-pox, four occurred in the Blenheim, the Coastguard ship at Milford Haven. One of them proved fatal at sick quarters at Milford, and in this instance the man bore the marks of a previous attack of the disease. In the remaining three cases the disease was modified.

There were two cases of small-pox in the Edinburgh which was stationed during almost the whole year at Queensferry, in the Firth of Forth. In one case the disease was contracted in Dunfermline, and in the other in Edinburgh, in both of which places it was prevailing. The patients were marines, and both had been vaccinated. In one, the disease proved very severe, and almost assumed the confluent form; in the other, it was so modified that only a few scattered pustules appeared. They were quite characteristic, however.

There was a case of small-pox in the Black Prince at Portsmouth, and one in the Royal Adelaide at Plymouth.

One-third of the cases of scarlatina occurred in the Boscawen, the training ship at Southampton. The disease was introduced into the ship by a boy who came on board on the 27th of October after a fortnight's leave. He stated that he had been attacked by scarlet fever ten days previous to his return, and when he made his appearance the desquamative process was going on. Considering that the Boscawen had usually between 300 to 400 boys under training, it is most fortunate that the disease did not spread to a greater extent.

There were three cases of scarlatina among the naval cadets on board the Britannia at Portland, where the disease had been rather prevalent a short time previously. With reference to these cases the following remarks appear in the journal of the ship: "The first case occurred in a naval cadet, and could not

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not be traced to any infectious communication. At the time, however, the cadets were allowed to go where they pleased when on shore. The disease had been in his family about six months previously. The second patient, also a naval cadet, had had a previous attack in February 1861. The third case also occurred in the person of a naval cadet. They were all sent on shore to the sick quarters for treatment as soon as possible, but in consequence of bad weather the last one had to be kept on board for more than twenty-four hours after the appearance of the rash, but he was put in a cabin unoccupied at the time. During this period there were very many cases of cynanche, and the majority presented an erysipelatous blush on the velum and uvula, the latter being swollen; in others the tonsils were enlarged, with some aphthous spots on them. In the severer cases there was accompanying fever, and I feel persuaded that this tendency to scarlatina must have been the cause of the sore throat, both arising from the same contagious poison; and in every case, therefore, I carefully inspected the chest, to see if there were any rash visible. In two of them a slight roseolar rash was visible, but it disappeared in a few hours."

There were four cases of scarlatina in the Cambridge, the gunnery ship at Plymouth, one of which was of the malignant form, and proved fatal on the fourth day. The other three cases were mild; two of them occurred in one man whose first attack was mild, and he was discharged to duty (after being twenty-three days under treatment) on the 20th of September. On the 10th of December following, he had an attack of rigors followed by fever, sore throat, and an efflorescence over the backs of his hands and arms, and over his back. The surgeon* says, "The rash came out about twenty-four hours after the rigors, presented all the peculiar characteristics of the disease, desquamation commenced on the sixth day, and all the diseased cuticle was thrown off, and convalescence established in the usual way."

Of the nineteen cases of measles that appear in the returns from the force, eight occurred in the Impregnable and three in the Royal Adelaide at Plymouth, where the disease seems to have been prevailing during the midsummer quarter of the year. They were all mild, and were at once removed from the

* Surgeon Thos. Seccombe.

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the ships to the hospital. Of the remaining eight cases, two occurred in the Cumberland at Sheerness; two in the Hogue in the Clyde; one in the Blenheim at Milford Haven; one in the Russell at Falmouth; one in the Indus at Plymouth; and one in the Formidable at Sheerness.

Diseases of the Brain and Nervous System.—There were two deaths from paralysis. In one of these, occurring in the person of a warrant officer, the disease had come on very gradually, the left side being the part of the body affected. He died in Haslar Hospital, and on post-mortem examination of the body, a tumour the size of a hen's egg, and of a fibrous nature, was found on the upper surface of the right hemisphere of the brain. The other case occurred in a marine, and appeared to be the result of chronic inflammatory disease in a patient whose constitution was undermined by syphilis.

A man died in an epileptic fit in Haulbowline Hospital. He was of very dissipated habits, and was sent into hospital labouring under great derangement of the digestive organs, the result of his depraved habits. He seemed to be improving under the treatment to which he was subjected, when he was suddenly seized with an epileptic fit. It was followed by others at irregular intervals; they increased in frequency; he gradually became unconscious, and died about thirty-six hours after the first seizure. There was no post-mortem examination of the body, his friends having objected to it. Two deaths from inflammatory disease of the brain occurred in boys. They both died in Plymouth Hospital. In one case the disease appears to have followed upon an injury received some time previously. A fatal case of apoplexy occurred in an old pensioner, a bandsman of the Royal Adelaide; and a boatswain's mate of the Indus who had been pulling in a boat, after coming up the ship's side fell dead on deck. On examining the body afterwards, the brain was found to be much congested, and there was great extravasation of blood at its base, as well as in the substance of the hemispheres. There were two deaths from delirium tremens.

Diseases of the Organs of Respiration.—The total ratios of cases of disease, of invaliding, and of mortality, under this head, is less this year than in 1861. There were 303 cases altogether of inflammation of the lungs or pleura under treatment,

ment, and of these eighteen were invalided, and seventeen died. The number of men daily sick from these diseases was about twenty-eight, and the total number of days' sickness on board ship and in hospital shows that the treatment of each case averaged about thirty-four or thirty-five days. Ninety-eight men were invalided for consumption, and forty-three died: so that nearly the whole number of cases of this disease under treatment, viz., 143, were thus disposed of.

Diseases of the Organs of Circulation.—There is an increase in the ratio of these diseases as compared with the preceding year, and the increase extends to the numbers invalided in consequence of them. The ratio of mortality, however, is precisely the same as in 1861. There were five deaths from aneurism; one of these was a somewhat singular case. The patient, a warrant officer of the Cambridge, was admitted into Plymouth Hospital with subclavian aneurism of the right side, the tumour being about the size of a hen's egg. Perfect quietness and rest were enjoined; the swelling gradually became smaller and firmer, so that for a time it was hoped that a spontaneous cure would be accomplished. After being about seven months in hospital, however, the tumour began suddenly and rapidly to increase, and speedily attained to about the size of a child's head. About three weeks before this officer's death a portion of the integument over the anterior fold of the axilla sloughed, and, through the opening so formed, the contents of the tumour (consisting of bloody coagula weighing seven ounces) subsequently escaped, but without being followed by any hæmorrhage. The aneurismal sac also sloughed, and the patient gradually sunk from irritative fever and exhaustion. At the post-mortem examination the subclavian artery from the scalenus anticus muscle to the first rib was found filled with a firm coagulum, the axillary artery and the upper part of the brachial were completely obliterated, and the lower part of the latter vessel was filled with a firm coagulum to within three inches of the bend of the elbow. Of the remaining cases of aneurism, one was of the arch of the aorta, opening into the trachea; two of the ascending aorta, opening within the pericardium; and one was an aneurism of the abdominal aorta.

Diseases of the Alimentary Canal.—There is a trifling decrease in the ratio of these diseases. Seven deaths resulted from

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from inflammation of the stomach and bowels, one from dysentery, one from diarrhœa, and one from stricture of the œsophagus. The stricture of the œsophagus was about an inch in length and of a cancroid character.

Diseases of the Genito-Urinary Organs.—There is an increase in the ratio of all cases of disease coming under this head as compared with the preceding year. The ratio per 1,000 of mean force of cases of syphilis in 1861, was 100·4, which was not only a great increase over the year that preceded it, but over any of the five preceding years. In the present year the ratio is 108·6. The total number of cases under treatment was 2,255, and the total number of days' sickness in hospital and on board ship shows that upwards of 212 men were daily ineffective from this disease alone, either in its primary or more pronounced secondary forms. When it is considered how many of the other diseases that rendered men inefficient were more or less dependent upon a syphilitic taint, some estimate may be formed of the loss inflicted upon the public service by this loathsome disease.

As heretofore, venereal disease abounded most in Portsmouth and Plymouth. It is, perhaps, no exaggeration to say, that from these two centres alone more syphilitic disease has been sown broadcast over the globe than from any other cities on the face of the earth.

The largest numbers of cases of venereal disease appear in the returns from the Asia, the Cumberland, the Edgar, the Revenge, the Royal Adelaide, the Trafalgar, the Victory, and the Warrior.

In the Asia, the guardship of the steam reserve at Portsmouth, there were 172 cases of syphilis and forty-six of gonorrhœa. Of this number seventy-five cases of syphilis and three of gonorrhœa were discharged to hospital.

There were 124 cases of syphilis and eighteen of gonorrhœa in the Cumberland, the guardship of the steam reserve at Sheerness. Fifty of the cases of syphilis were sent to hospital, and of these one was invalided. The total number of days' sickness on board ship and in hospital from all the cases of syphilis in the Cumberland was 3,566.

In the Edgar, in a period of about six months, there were 120 cases of syphilis and sixteen of gonorrhœa. Almost the whole

whole of this venereal disease was contracted at Portsmouth, while the ship was fitting out, and it occasioned a very considerable loss of service. About fifty cases of syphilis were discharged to hospital. On leaving Portsmouth, after completing the fitting out of the ship, a general inspection of the ship's company was made, when forty-four men were discovered to be labouring under venereal disease. Nineteen of these were of a mild character, but of the more severe cases there were twenty-three of syphilis and two of acute gonorrhœa.

There were 143 cases of syphilis and twenty-seven of gonorrhœa in the Revenge, the flag-ship of the Channel fleet. With reference to these affections, the surgeon* says, "In referring to this subject of venereal, however, I may here state my belief, that our ship's company have not been affected with it this year to such a very large extent as they were in the first year of the commission. Whether it is that they are more select in their associates after some experience of Channel service, or whether the effects of cleanliness and discipline to which they have had a little more training have conduced to their protection, I do not pretend to say. Perhaps there is another reason, the weeding of bad and useless characters from the crew, that may have had some beneficial influence on such statistics; but apart from that, altogether there is certainly some diminution in the number, and in the primary severity, too, of these cases this year. I do not venture to suggest that there may be an improvement in the condition of the liberty men's friends on shore. I find no good foundation for such a supposition; and if I am not greatly mistaken, the troops in the garrisons have had no greater immunity this year than in former years; the percentage of their venereal cases to their strength still holds to about the same ratio, I think about 8 per cent." After remarking that the men continued to come on board with itch after leave at Plymouth, Portsmouth, and Queenstown, he continues, "Having seen our men going freely on leave at Plymouth, Queenstown, and Portsmouth during this year, I might speculate on the comparative prevalence at the three ports of these two diseases, the only two, perhaps, that may be said to be the effects of general leave. Without pretending to great accuracy of figures, I am safe in saying that Plymouth is

* Dr. Wm. Duirs.

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is decidedly the worst of the three in the matter of itch. Venereal seems to be not less common at Portsmouth, and I have observed towards the close of the year, after a six weeks' stay there to refit the ship, that the cases of secondary syphilis among those who contracted the primary sores at Portsmouth, have been in a much larger ratio than at the other ports. There was no marked difference in the character of the sores, and no kind of chancre seemed to be altogether free from secondary consequences. Two sores which I noted as simple, and which were attended by suppurating buboes, gave rise to syphilitic psoriasis all over the body, and in one of the cases to rheumatism, and tenderness of the shin-bones. The primary treatment in these cases was the very simplest; one of them had no medicine whatever, and the other had only a blue pill at night as an alterative for four consecutive nights, before the sore healed up."

In the flagship at Plymouth, the Royal Adelaide, there were 146 cases of syphilis, and eighty of gonorrhœa. Of these, 104 cases of syphilis and fifteen of gonorrhœa were discharged to hospital. The surgeon* of the Royal Adelaide says, "Syphilis and gonorrhœa seem to prevail at this port even more extensively than formerly, and to have increased in virulence, the great majority requiring treatment for a long time in hospital; and in the comparatively slighter cases, which at the time of their reception appeared too unimportant to be sent there, many weeks often elapsed before a cure could be effected."

In the Trafalgar, in which there were 132 cases of syphilis, and eleven of gonorrhœa, and in the Victory, in which there were 169 cases of syphilis and forty of gonorrhœa, the disease was mainly contracted at Portsmouth; and to the same locality may also be attributed the majority of the 120 cases of syphilis and nineteen of gonorrhœa which appear in the returns of the Warrior.

The surgeon† of this vessel states, that during the year 1862, the Warrior was deprived by these diseases alone of the services of 32·05 per 1,000 of her crew, daily. In order to convey some idea of the extent to which venereal affections prevail at the home ports, he says, "A not uncommon history of such cases is, that a man sent cured from hospital to a guard ship

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* Staff Surgeon R. T. C. Scott. † Surgeon S. S. D. Wells.

ship to await an opportunity of rejoining his own vessel, contracts syphilitic disease anew, and returns to his own ship only to undergo another course of treatment. Another man discharged from one hospital, on his passage to another port, presents himself with a recurrence of disease, is sent to a second hospital, and there again cured; but before he can pass through the guard ship, and reach his own, he is again ready for the sick list with secondary, or possibly both primary and secondary symptoms, ending in his being invalided after months of treatment in ships and hospitals."

That there should have only been two cases of syphilis and eight of gonorrhœa in the St. Vincent, is probably attributable to the fact of her being the training ship for boys at Portsmouth; the great majority of those borne on her books being consequently under careful superintendence while on shore; while most of the proper crew of the vessel were married men. The same observations apply to the Implacable, the training ship for boys at Plymouth, in which there were only two cases of syphilis, and none of gonorrhœa.

Six deaths resulted from disease of the kidneys. Five of these were from Bright's disease, and the sixth from diabetes. In one of the cases of Bright's disease, the interval that elapsed between the first appearance of the symptoms that lead to the examination of the urine and his death was only four days. He was placed on the sick list on the 16th of January with ordinary catarrhal symptoms, accompanied with sore throat. On the 18th some puffiness of the scrotum and swelling of the legs were observed. On the 19th this swelling had much increased, and on examining the urine it was found to be highly albuminous. On the 20th he had convulsions, with tendency to coma. On the 21st he was discharged to Plymouth Hospital, and on the 23d he died; unfortunately there appears to have been no post-mortem examination of the body.

Two deaths appear under the head of abscess. One of these was a case of psoas abscess; the other, originally a case of rheumatism affecting the various large joints, terminated in inflammation and purulent effusion into both knee-joints, under which the man ultimately sunk exhausted in Plymouth Hospital; on post-mortem examination the cartilages

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lages of the joints were found to be quite gone, and the articulating ends of the bones carious.

A death from debility occurred in a boy while on leave with his friends in London; and there were four deaths from dropsy.

Wounds and Injuries.—Seven men were killed by falling from aloft; one by falling off a boat's davit; one by falling off a ladder on shore when drunk; one young officer was killed by falling over a cliff at Portland; and a man was killed by falling over a cliff at Holy Island. A man was crushed to death by a gun while at drill, and a stoker died from the shock of a severe injury, to the left knee-joint, which was crushed by machinery. A man was killed by a rope falling upon him from aloft, and fracturing his skull. Three men committed suicide, one by hanging himself, and two by throwing themselves overboard.

Eight men were drowned by falling overboard; nine by the upsetting of boats; two by jumping out of a boat to avoid being drawn under the screw of a steamer, and four men were drowned by falling out of boats. Three men were drowned while on leave, one of these being lost in a steamer, which was wrecked. One man, in passing along a plank from the ship to the shore, fell into the dock and was drowned; and a man was drowned by falling off a pier when intoxicated. The total deaths from diseases of all kinds was 128, and from wounds and injuries and drowning, forty-five; making the total mortality 173, or in the ratio of 8·2 per 1,000 of mean force, which is a decrease of 1·4 per 1,000 as compared with the preceding year.

Invalided.—Five men were invalided for the sequela of fever; seventy-two for affections of the brain and nervous system, of whom forty were subject to epilepsy, eight were paralytic, and seven were insane; 119 were invalided for diseases of the respiratory organs, ninety-eight of whom were phthisical, and twenty laboured under various inflammatory affections. Ninety-eight men were invalided for functional or organic diseases of the heart and blood-vessels; eleven for disease of the alimentary canal; four for inflammation of the liver; and fifty-four for disease of the genito-urinary organs, of whom twenty-two were for syphilis. Fifty-five men were invalided

invalided for rheumatism; thirteen for diseases of the bones and joints; thirty-nine for affections of the special senses; fifty-five for diseases of the skin and cellular tissue; twenty-five for dyspepsia and debility; four for dropsy; fifty-two for wounds and injuries of various kinds; thirty-three for hernia; and one for the results of poisoning by lead. The total number invalided was 640, being in the ratio of 30·8 per 1,000 of mean force: the ratio of invaliding in 1861 was 31·2 per 1,000.

TABLE, No. 1.

SHOWING the Number of CASES of all DISEASES and INJURIES, and the Number INVALIDED and DEAD, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	295	14·2	2	- -	10	·4
Intermittent Fever	121	5·8	3	·1	—	—
Small-pox	8	·3	- -	- -	1	—
Measles	19	·9	—	—	—	—
Scarlatina	27	1·3	- -	- -	1	—
Disease of the Brain	10	·4	3	·1	2	—
Apoplexy	4	·1	- -	- -	2	—
Epilepsy	75	3·6	40	1·9	1	—
Paralysis	18	·8	8	·3	2	—
Insanity	20	·9	7	·3	—	—
Delirium Tremens	68	3·2	1	- -	2	—
Headache, &c.	129	6·2	13	·6	—	—
Inflammation of the Lungs and Pleura	303	18·5	18	·9	17	·8
Phthisis and Hæmoptysis	143	6·8	98	4·7	43	2·
Influenza and Catarrh	2,618	125·6	—	—	—	—
Cynanche	924	44·	2	—	—	—
Asthma	11	·5	1	—	—	—
Functional and Organic Disease of the Heart	195	9·3	89	4·2	10	·4
Hæmorrhoids	65	3·1	—	—	—	—
Varix	26	1·2	9	·4	—	—
Aneurism	- -	- -	- -	- -	5	·2
Inflammation of the Stomach and Bowels	21	1·1	3	·1	7	·3
Dysentery	23	1·2	6	·2	1	—
Diarrhœa	558	26·8	2	- -	1	—
Cholera	1	—	—	—	—	—
Constipation and Colic	207	9·9	—	—	—	—
Stricture of the Œsophagus	- -	- -	- -	- -	1	—
Inflammation of the Liver	30	1·4	4	·1	4	·1
Jaundice	54	2·6	—	—	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	22	1·1	6	·2	6	·2
Syphilis	2,255	108·6	22	1·1	—	—
Gonorrhœa	723	34·8	—	—	—	—
Orchitis	429	20 6	3	·1	—	—
Stricture	63	3·	6	·2	1	—
Incontinence of Urine, &c.	29	1·3	17	·8	—	—
Rheumatism	1,365	65·7	55	2·6	—	—
Gout	38	1·8	—	—	—	—
Disease of the Bones and Joints	67	3·2	13	·6	—	—
Ophthalmia	280	12·4	6	·2	—	—
Amaurosis and Cataract	18	·8	22	1·1	—	—
Otitis and Deafness	55	2·6	11	·5	—	—
Erysipelas	51	2·4	1	- -	3	·1
Scrofula	35	1·6	15	·7	—	—
Bubo (*Symp.*)	305	14·6	—	—	—	—
Phlegmon and Abscess	3,501	168·6	7	·3	2	—
Ulcer	1,776	85·5	22	1·1	—	—
Psora	1,269	61·1	—	—	—	—
Eruptions, &c.	465	22·3	10	·4	—	—
Dyspepsia and Debility	844	40·6	25	1·2	1	—
Scurvy	3	·1	—	—	—	—
Dropsy	32	1·5	4	·1	4	·1
Worms	16	·7	—	—	—	—
Purpura	3	·1	—	—	—	—
Not stated	- -	- -	- -	- -	1	—
Wounds and Injuries	3,821	184·	52	2·5	16	·7
Burns and Scalds	153	7·3	—	—	—	—
Hernia	48	2·3	33	1·5	—	—
Drowned	- -	- -	- -	- -	26	1·2
Poison	1	- -	1	—	—	—
Asphyxia	1	—	—	—	—	—
Suicide	- -	- -	- -	- -	3	·1
TOTAL	23,641	1138·8	640	30·8	173	8·2

TABLE, No. 2.

SHOWING the Number of DAYS' SICKNESS from each DISEASE, and from INJURIES, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	2,088	3,842	5,930	16·2	·7
Intermittent Fever	955	351	1,306	3·5	·1
Small-pox	18	80	98	·2	—
Measles	50	181	231	·6	—
Scarlatina	130	540	670	1·8	—
Disease of the Brain	144	209	353	·9	—
Apoplexy	89	57	146	·4	—
Epilepsy	639	554	1,193	3·2	·1
Paralysis	85	1,013	1,098	3·	·1
Insanity	21	522	543	1·5	—
Delirium Tremens	389	417	806	2·2	·1
Headache, &c.	772	817	1,589	4·3	·1
Inflammation of the Lungs and Pleura	3,503	6,953	10,456	28·6	1·3
Phthisis and Hæmoptysis	1,471	8,377	9,848	26·9	1·2
Influenza and Catarrh	16,747	1,849	18,596	50·9	2·4
Cynanche	5,758	753	6,511	17·8	·8
Asthma	79	111	190	·5	—
Functional and Organic Disease of the Heart	2,160	3,672	5,832	15·9	·7
Hæmorrhoids	783	217	1,000	2·7	·1
Varix	258	143	401	1·	—
Inflammation of the Stomach and Bowels	124	428	552	1·5	—
Dysentery	231	1,155	1,386	3·6	·1
Diarrhœa	2,461	438	2,899	7·6	·3
Cholera	4	21	25	—	—
Constipation and Colic	1,133	111	1,244	3·4	·3
Inflammation of the Liver	359	628	987	2·7	·1
Jaundice	654	183	737	2·	—

TABLE, No. 2.—Showing the Number of Days' Sickness from each Disease, &c.—*cont^d.*

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	455	601	1,056	2·8	·1
Syphilis	35,784	41,633	77,417	212·1	10·2
Gonorrhœa	6,762	2,258	9,020	24·7	1·1
Orchitis	5,549	2,145	7,694	21·	1·
Stricture	493	1,583	2,076	5·6	·2
Incontinence of Urine, &c.	271	161	432	1·1	—
Rheumatism	13,360	12,653	26,013	71·2	3·4
Gout	432	18	450	1·2	—
Disease of the Bones and Joints	1,126	2,085	3,211	8·7	·4
Ophthalmia	2,552	1,318	3,870	10·6	·5
Amaurosis and Cataract	202	295	497	1·3	—
Otitis and Deafness	405	345	750	2·	—
Erysipelas	553	506	1,059	2·9	·1
Scrofula	341	1,560	1,901	5·2	·2
Bubo (*Symp.*)	5,238	1,275	6,513	17·8	·8
Phlegmon and Abscess	27,927	5,346	33,273	91·1	4·3
Ulcer	27,791	9,015	36,806	100·8	4·7
Psora	9,057	465	9,522	26·	1·2
Eruptions, &c.	6,751	3,269	10,020	27·4	1·3
Dyspepsia and Debility	5,370	2,704	8,074	22·1	1·
Scurvy	47	-	47	—	—
Dropsy	327	1,344	1,671	4·5	·2
Worms	122	23	145	·3	—
Purpura	46	-	46	—	—
Cancer	-	23	23	—	—
Wounds and Injuries	37,851	8,753	46,604	127·6	6·1
Burns and Scalds	2,167	195	2,362	6·4	·3
Hernia	534	219	753	2·	—
Asphyxia	5	-	5	—	—
Poison	-	17	17	—	—
TOTAL	232,523	133,431	365,954	1002·6	48·2

TABLE, No. 3. - - - - - - - -

SHOWING the Number INVALIDED - - - - - -

CAUSE of INVALIDING.	Ajax.	Asia.	Black Prince.	Blenheim.	Britannia.	Cambridge.	Chanticleer.	Colossus.	Cornwallis.	Cumberland.	Dasher.	Dauntless.	Dee.	Defence.	Eagle.	Edgar.	Edinburgh.	Emerald.	Excellent.	Ferret.	Fisgard.	Formidable.
Continued and Remittent Fever	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Intermittent Fever	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Inflammation of the Brain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Paralysis	-	-	-	-	-	1	-	-	-	-	-	-	-	2	-	-	1	-	1	-	1	-
Epilepsy	-	2	-	-	-	-	-	-	1	2	-	-	-	2	-	-	-	1	1	-	2	5
Insanity	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	1
Delirium Tremens	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Headache, &c.	-	1	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	1	6
Inflammation of the Lungs	-	1	-	-	-	-	-	-	1	4	-	-	-	1	-	-	-	-	1	-	-	1
Phthisis and Hæmoptysis	-	6	3	1	1	4	-	1	-	6	-	3	-	5	-	2	-	1	7	2	3	1
Asthma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cynanche	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-
Functional and Organic Disease of the Heart	1	3	-	-	-	3	2	2	1	7	-	-	-	-	1	1	-	-	4	-	10	8
Varix	-	1	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Inflammation of the Kidneys and Bladder	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	1	1
Syphilis	1	-	1	-	-	-	-	-	-	3	-	-	1	1	-	3	-	-	1	-	2	-
Orchitis	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Stricture	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	2	-
Incontinence of Urine, &c.	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	2	6
Inflammation of the Bowels	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Dysentery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-
Diarrhœa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disease of the Liver	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Rheumatism	1	1	-	-	-	1	-	-	-	7	-	3	-	1	-	-	-	1	1	-	8	1
Diseases of the Bones and Joints	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Ophthalmia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amaurosis	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1
Deafness	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Erysipelas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scrofula	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	2	-	-	1
Abscess	-	2	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	3	1
Ulcer	-	2	1	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	3	3
Eruptions, &c.	-	-	-	-	-	-	-	-	-	2	-	-	-	2	-	-	-	-	-	-	-	2
Debility	-	2	-	-	-	-	-	1	1	6	-	-	-	2	-	-	-	-	-	-	-	2
Dropsy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wounds	-	2	-	-	-	1	2	-	-	3	1	1	-	3	-	-	1	1	1	-	4	3
Hernia	-	1	1	-	-	1	-	-	-	3	-	-	-	1	-	1	1	-	1	-	1	-
Poisoning by lead	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	3	29	8	2	2	14	4	8	4	50	1	7	1	23	2	10	3	9	21	2	46	45

Table, No. 3.

from each Ship employed on the Home Station.

Geyser.	Hawke.	Hogue.	Implacable.	Impregnable.	Indus.	Lizard.	Majestic.	Pembroke.	Resistance.	Revenge.	Rhadamanthus.	Rosario.	Royal Adelaide.	Russell.	St. Vincent.	Sealark.	Shannon.	Squirrel.	Trafalgar.	Victoria and Albert.	Victory.	Vigilant.	Virago.	Warrior.	Wellesley.	Total.
–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	2
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
–	–	–	–	–	1	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
–	–	–	2	1	2	–	3	–	–	1	–	–	8	–	1	–	1	–	2	–	1	1	2	–	–	8
–	–	1	–	–	1	–	–	–	–	1	–	–	3	–	–	–	1	–	2	–	–	1	–	–	–	40
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	2	–	–	–	–	–	–	7
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1	–	–	1	13
–	–	–	1	–	–	–	–	–	–	1	–	–	1	–	2	–	2	1	3	–	1	–	–	–	–	18
–	5	–	1	4	3	–	1	–	1	4	–	–	7	–	1	–	1	1	5	2	8	1	2	3	1	98
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	1	–	–	1	–	–	–	–	–	2	1	2	8	–	2	–	1	–	1	–	7	–	4	10	6	89
–	–	–	–	–	–	–	–	–	–	–	1	–	2	–	–	–	–	–	2	–	–	–	–	–	1	9
–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	6
1	–	–	–	–	–	–	–	–	–	1	–	–	1	–	–	–	–	–	2	–	1	–	–	3	–	22
–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
–	1	–	1	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1	–	–	–	6
–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	3	17
–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	2	–	1	–	–	6
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1	–	2
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1	–	4
–	2	–	–	–	–	–	–	–	1	1	–	–	2	–	–	–	3	–	2	–	9	1	1	5	3	55
–	–	1	–	–	–	–	–	1	1	1	1	–	1	–	1	–	–	–	–	–	–	–	–	2	2	13
–	–	–	1	–	–	1	–	–	1	–	–	–	2	–	1	–	–	–	–	–	–	–	–	–	–	6
–	–	–	1	–	–	–	–	1	2	1	–	–	2	–	–	–	1	–	1	2	1	–	–	3	3	22
–	–	–	1	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	1	–	–	1	11
–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	1	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1	–	3	–	–	–	1	15
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	7
–	–	–	3	–	–	–	–	–	–	–	–	–	1	–	1	–	3	–	2	–	1	–	–	–	–	22
–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	1	–	–	–	1	–	–	1	–	10
–	–	–	–	–	1	–	–	1	–	–	–	–	1	–	3	–	–	–	1	–	2	–	1	–	1	25
–	–	–	–	–	–	–	–	–	–	1	–	–	1	–	–	–	–	–	–	–	2	–	–	–	–	4
1	–	–	–	2	1	–	–	1	2	1	–	–	6	1	1	–	–	1	3	–	6	–	–	2	1	52
–	1	1	1	–	1	–	–	1	1	3	–	–	3	–	1	2	1	–	2	–	3	–	1	–	–	33
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
2	11	3	12	10	11	1	4	6	10	19	4	2	51	1	14	2	16	2	30	4	55	6	13	32	25	440

TABLE, No. 4. - - - - - - - -

SHOWING the Number of DEATHS in each Ship - - - - -

CAUSE of DEATH.	Ajax.	Asia.	Black Prince.	Blenheim.	Boscawen.	Britannia.	Cambridge.	Castor.	Chanticleer.	Colossus.	Cornwallis.	Cumberland.	Dasher.	Dauntless.	Defence.	Edgar.	Edinburgh.	Emerald.
Continued and Remittent Fever -	–	–	1	–	1	–	–	–	–	–	–	–	1	1	–	–	–	–
Small-pox - - - - - -	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Scarlatina - - - - - -	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Brain - -	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Paralysis - - - - - -	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–
Epilepsy - - - - - -	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Apoplexy - - - - - -	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Delirium Tremens - - -	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Lungs and Pleura	–	1	–	–	1	1	–	–	1	–	1	–	1	–	–	1	–	–
Phthisis and Hæmoptysis - -	1	4	1	2	–	1	2	–	–	2	–	2	–	–	1	1	1	–
Disease of the Heart - - -	–	1	–	–	–	–	–	–	–	1	–	2	–	–	–	–	–	1
Disease of the Aorta - - -	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
Aneurism - - - - - -	–	–	–	–	–	–	1	–	–	1	–	–	–	–	–	–	–	–
Disease of the Stomach and Bowels -	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
Dysentery - - - - - -	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diarrhœa - - - - - -	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Disease of the Liver - - -	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–
Disease of the Bladder and Kidneys	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–
Stricture - - - - - -	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Erysipelas - - - - - -	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1	–	–	–
Debility - - - - - -	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Abscess - - - - - -	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1
Dropsy - - - - - -	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–
Stricture of the Œsophagus - -	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–
Wounds and Injuries - - -	2	2	1	–	–	1	–	–	–	–	–	1	–	–	–	3	–	–
Drowned - - - - - -	1	3	–	2	1	–	–	1	–	–	–	1	–	–	–	1	–	–
Suicide - - - - - -	–	1	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–
Not stated - - - - - -	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–
TOTAL - - -	4	14	3	5	3	5	6	1	1	6	2	7	2	1	2	8	3	2

Table, No. 4.

employed on the Home Station.

Excellent.	Ferret.	Fisgard.	Formidable.	Hastings.	Hawke.	Hogue.	Implacable.	Impregnable.	Indus.	Majestic.	Revenge.	Rosario.	Royal Adelaide.	Russell.	St. Vincent.	Saturn.	Trafalgar.	Trincomalee.	Victoria and Albert.	Victory.	Vigilant.	Virago.	Warrior.	Wellesley.	Total.
–	–	1	–	–	–	–	–	1	1	1	–	–	–	–	–	–	–	–	–	2	–	–	–	–	10
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	1	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	2
–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	–	–	–	–	1	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1	–	–	–	–	2
2	–	–	–	–	–	–	–	1	1	–	1	–	–	–	–	1	1	–	–	2	–	–	1	1	17
3	1	3	–	–	1	1	–	3	2	–	1	–	4	2	1	–	–	–	–	3	–	–	–	–	43
–	–	2	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	10
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	4
–	–	–	1	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1	–	1	2	–	7
–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4
–	–	–	–	1	–	–	–	–	1	–	–	–	–	–	–	1	–	–	–	1	–	–	1	–	6
–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	3
–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	1	4
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
1	–	–	–	–	–	–	–	1	–	–	–	2	–	–	–	–	–	–	–	–	–	–	2	–	16
–	–	–	1	–	–	–	–	–	4	1	1	–	–	1	–	–	1	–	–	–	–	–	6	1	26
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	3
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
6	2	6	2	1	1	3	1	8	10	2	4	2	9	3	1	2	3	1	1	12	1	1	12	4	173

Table, No. 5.

Showing the Names of the Ships; the Average Complements and the Mean Force; the Total Number of Cases; the Total Number of Days' Sickness on Board, and the Average Number of Men Sick Daily in each Ship.

C. Commissioned. P. O. Paid off.

NAME OF SHIP.	Number of Guns, Horse Power, &c.	Period.	Average Complement.	Mean Force of each Ship.	Number of Cases.	Number of Days' Sickness on Board.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force of each Ship.	Number Discharged to Hospital.
Ajax	60 Sc. 450	year	420	420	336	4,224	11·5	27·3	45
Asia	-	year	1,730	1,730	1,041	10,285	28·1	16·2	201
Black Prince C.	40 Sc. 1,250	6 mo.	680	340	648	5,576	15·2	44·7	29
Blenheim	60 Sc. 450	year	340	340	404	4,856	13·2	38·8	15
Boscawen C.	20	8 mo.	375	250	324	4,375	11·9	47·6	16
Brilliant C.	16	6 mo.	30	15	13	125	·3	20·	–
Britannia	8	year	390	390	693	4,956	13·5	34·6	57
Cambridge	78	year	670	670	646	6,093	16·6	24·7	57
Castor	22	year	60	60	42	658	1·8	30·	–
Chanticleer	17 Sc. 200	year	180	180	298	4,282	11·7	68·8	15
Chatham Reserve	-	3 mo.	135	35	12	191	·5	14·2	1
Colossus	80 Sc. 400	year	295	295	245	2,752	7·3	24·7	31
Cornwallis	60 Sc. 200	year	220	220	257	3,137	8·5	38·6	14
Cumberland	24	year	1,220	1,220	984	11,316	31·	25·3	166
Dædalus C.	-	6 mo.	30	15	16	134	·3	20·	1
Dasher	2	year	130	130	87	829	2·2	16·9	12
Dauntless	31 Sc. 580	year	180	180	202	2,366	6·4	35·5	20
Dee P. O.	1 P. W. 220	2 mo.	65	10	9	74	·2	20·	–
Defence	16 Sc. 600	year	450	450	970	10,981	30·	66·6	92
Eagle P. O.	16	2 mo.	275	40	31	343	·9	22·5	2
Eagle C.	16	6 mo.	30	15	13	92	·2	13·3	–
Edgar C.	71 Sc. 60	6 mo.	720	360	726	4,655	12·7	35·2	80
Edinburgh	60 Sc. 450	year	270	270	258	2,456	6·7	24·8	23
Emerald	35 Sc. 600	year	525	525	591	[8,124	22·2	42·2	55
Excellent	Gunnery ship	year	950	950	777	5,845	16·	16·8	184
Ferret	8	year	115	115	237	2,078	5·6	48·6	49
Fisgard	42	year	535	535	600	4,201	11·5	21·4	143
Formidable	26	year	490	490	796	5,714	15·6	31·8	51
Fox C.	2 Sc. 200	10 mo.	100	85	162	1,174	3·2	37·6	14
Geyser	6 P. W. 280	year	165	165	236	3,115	8·5	51·5	22
Hastings P. O.	50 Sc. 200	6 mo.	50	25	29	289	·7	28·	2
Hastings C.	50 Sc. 200	6 mo.	140	70	40	355	·9	12·8	8
Hawke	60 Sc. 200	year	360	360	342	3,443	9·4	26·1	32
Hogue	60 Sc. 450	year	350	350	212	2,052	5·6	16·	21
Implacable	18	year	390	390	511	5,161	14·1	36·1	41
Impregnable	78	year	560	560	613	2,680	7·3	13·	69
Indus	-	year	1,450	1,450	732	7,882	21·5	14.8	50
Jackal	4 P. W. 150	year	60	60	12	173	·4	6·6	2
Lizard	3	year	45	45	44	345	·9	20·	13
Majestic	80 Sc. 400	year	360	360	544	5,279	14·4	40·	4
Pembroke	60 Sc. 200	year	230	230	297	3,086	8·4	36·5	33
President C.	-	6 mo.	40	20	23	163	·4	29·	–
Resistance C.	16 Sc. 600	6 mo.	460	230	286	3,263	8·9	38·7	25
Revenge	73 Sc. 800	year	865	865	1,183	13,223	36·2	41·8	73
Rhadamanthus	P. W. 220	year	70	70	106	978	2·6	37·1	6
Rolla P. O.	6	11 mo.	75	70	57	421	1·1	15·7	7
Rosario C.	11 Sc. 150	6 mo	130	65	191	1,839	5·	76·9	13
Royal Adelaide	26	year	670	335	733	5,975	16·3	48·6	267
Russell	60 Sc. 200	year	310	310	149	2,097	5·7	18·3	4
St. Vincent	26	year	440	440	521	6,607	18·1	44·4	53
Saturn	-	year	70	70	24	510	1·3	18·5	–
Sealark	8	year	80	80	159	1,203	3·2	40·	17
Shannon C.	35 600	8 mo.	510	340	89	7,932	21·7	63·8	58
Squirrel	8	year	85	85	89	515	1·4	16·4	7
Trafalgar	70 Sc. 500	year	805	805	1,425	14,473	36·9	45·8	98
Trincomalee C.	16	7 mo.	30	15	13	201	·5	33·3	1
Victoria and Albert	2 P. W. 600	year	200	200	118	810	2·2	11·	30
Victory	12	year	930	930	1,091	6,506	17·8	19·1	233
Vigilant P. O.	4 Sc. 200	10 mo.	90	75	130	1,917	5·3	70·6	9
Virago	6 P. W. 300	year	180	180	352	4,091	11·1	61·6	39
Warrior	40 Sc. 1,50	year	690	690	1,095	15 700	43·	62 8	139
Wellesley	72	year	470	470	12	2,799	7·6	16 1	41
Winchester C.	12	6 mo.	30	15	15	110	·3	20·	2

Table, No. 6.

Showing the Number of Cases of all Diseases and Injuries in each Ship employed on the Home Station.

DISEASE OR INJURY.	Ajax.	Asia.	Black Prince.	Blenheim.	Boscawen.	Brilliant.	Britannia.	Cambridge.	Castor.	Chanticleer.	Chatham Reserve.	Colossus.	Cornwallis.	Cumberland.	Dædalus.	Dasher.	Dauntless.	Dee.	Defence.	Eagle.
Continued and Remittent Fever	1	10	–	2	14	–	40	3	–	–	–	9	6	13	–	7	2	–	1	
Intermittent Fever	1	3	7	–	2	–	3	1	–	–	–	–	2	19	–	1	–	–	1	1
Small-pox	–	–	1	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Scarlatina	–	–	–	–	9	–	3	4	–	–	–	–	–	1	–	–	–	–	2	
Measles	–	–	–	1	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	
Inflammation of the Brain	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	1	–	–	–	
Apoplexy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	
Epilepsy	1	2	–	–	1	–	–	1	–	–	–	2	3	5	–	–	1	–	3	
Insanity	–	2	1	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	–	
Delirium Tremens	–	6	1	2	–	–	–	–	–	2	–	–	–	13	–	–	1	–	1	
Paralysis	–	1	–	1	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	
Headache, &c.	1	–	–	2	2	–	46	1	–	–	–	5	–	1	–	–	–	–	3	
Inflammation of the Lungs and Pleura	14	9	15	8	2	1	22	4	1	10	–	3	2	8	–	5	–	–	8	
Phthisis and Hæmoptysis	–	6	2	8	–	–	3	8	2	–	–	2	1	8	–	–	1	–	5	
Catarrh	38	99	76	41	26	1	104	64	4	43	–	10	38	102	4	16	19	1	129	3
Cynanche	17	25	19	–	10	–	119	21	1	2	3	10	9	39	*b* 3	4	4	–	*b* 31	
Asthma	–	–	–	3	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	
Functional and Organic Disease of the Heart	1	12	–	2	–	–	–	5	1	4	1	4	2	18	–	–	–	–	–	1
Hæmorrhoids	–	1	1	–	–	–	1	–	–	–	–	–	–	4	–	1	–	–	12	
Varix	–	1	–	–	–	–	–	2	1	–	–	–	–	–	–	–	–	–	2	1
Inflammation of the Stomach and Bowels	–	1	–	–	–	–	1	3	–	–	–	–	*a* 1	1	–	–	–	–	1	
Dysentery	–	4	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	
Diarrhœa	5	21	22	8	3	–	17	19	3	9	1	1	18	17	–	3	7	–	9	1
Cholera	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Constipation and Colic	1	1	3	5	3	–	2	5	2	2	1	6	14	4	1	1	2	–	8	1
Inflammation of the Liver	–	6	1	1	–	–	–	–	–	–	–	–	–	3	–	–	–	–	1	
Jaundice	1	3	2	–	–	–	–	–	–	1	–	3	–	1	–	–	–	–	1	
Inflammation of the Kidneys and Bladder	1	2	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	
Syphilis	17	172	68	23	1	2	18	60	2	30	1	19	23	124	–	4	13	–	83	1
Gonorrhœa	9	46	17	13	3	–	8	18	1	12	–	18	6	118	–	1	7	–	48	
Orchitis	9	23	18	2	5	–	9	16	–	5	–	6	2	6	–	–	6	–	23	1
Stricture	2	5	2	1	1	–	2	1	–	2	–	–	2	2	–	–	1	–	1	
Incontinence of Urine, &c.	–	1	–	1	–	–	–	1	–	–	–	–	–	4	–	–	–	–	–	
Rheumatism	25	62	51	13	4	2	37	34	5	19	–	18	12	42	–	5	18	–	58	
Gout	4	4	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	3	
Disease of the Bones and Joints	1	–	2	3	1	1	–	–	–	–	2	1	–	–	–	2	1	–	2	
Inflammation of the Eyes	2	18	10	3	2	–	4	13	–	6	–	4	5	11	–	–	5	–	16	
Amaurosis and Cataract	–	1	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	
Otitis and Deafness	–	–	–	–	1	–	5	–	–	–	–	1	–	4	–	–	–	–	3	
Erysipelas	3	–	2	–	–	–	1	4	1	–	–	–	–	–	–	1	–	–	2	
Scrofula	–	2	–	4	–	–	–	4	–	–	–	–	–	1	–	2	–	–	2	
Bubo (*Symp.*)	8	–	4	3	2	–	7	5	1	7	–	3	7	14	–	7	–	1	13	
Phlegmon and Abscess	38	81	91	110	60	4	93	84	3	62	1	36	48	95	4	6	35	1	126	3
Ulcer	24	53	22	21	56	1	18	29	1	12	–	14	6	43	2	2	9	–	58	9
Psora	24	160	39	5	9	–	14	56	–	3	–	6	11	27	1	–	10	–	30	1
Eruptions, &c.	7	8	22	–	16	1	15	14	1	7	–	7	2	8	–	1	6	–	15	2
Dyspepsia and Debility	12	34	26	39	21	–	22	44	3	8	–	13	2	90	–	–	10	–	41	1
Dropsy	–	–	–	–	11	–	–	–	–	–	–	–	–	4	–	–	1	–	–	
Worms	–	1	1	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	
Wounds and Injuries	68	148	112	72	55	–	75	113	7	51	2	40	34	112	1	15	39	6	224	5
Burns and Scalds	1	4	8	3	3	–	3	4	–	1	–	1	1	6	–	2	3	–	2	
Hernia	–	3	1	–	–	–	–	3	–	–	–	1	–	4	–	–	–	–	2	
Scurvy	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	
Purpura	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Poison	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Asphyxia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Total	336	1,041	648	404	324	13	693	646	42	298	12	245	257	984	16	87	202	9	970	31

continued on p. 26.

a Hæmatemesis.

b Diphtheria.

TABLE, No. 6—Showing the Number of Cases of all Diseases and Injuries - - -

continued from p. 25.

DISEASE OR INJURY.	Eagle.	Edgar.	Edinburgh.	Emerald.	Excellent.	Ferret.	Fisgard.	Formidable.	Fox.	Geyser.	Hastings.	Hastings.	Hawke.	Hogue.	Implacable.	Impregnable.	Indus.	Jackal.	Lizard.	Majestic.
Continued and Remittent Fever	1	10	4	1	11	–	6	1	1	3	–	3	4	1	4	6	7	–	–	1
Intermittent Fever	–	–	–	3	9	2	–	3	–	3	–	–	1	–	–	3	5	–	1	1
Small-pox	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Scarlatina	–	–	–	–	1	–	–	–	–	–	–	–	–	–	2	–	1	–	–	–
Measles	–	–	–	–	–	–	–	1	–	–	–	–	–	2	–	3	1	–	–	–
Inflammation of the Brain	–	2	–	–	1	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–
Apoplexy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–
Epilepsy	–	–	2	–	1	–	1	6	–	–	–	–	–	–	2	2	3	–	–	5
Insanity	–	–	–	2	2	–	1	1	–	–	–	–	1	–	–	–	1	–	–	1
Delirium Tremens	–	1	–	2	1	–	3	–	1	–	1	1	–	–	–	–	2	–	–	5
Paralysis	–	–	1	1	2	–	–	–	–	1	–	1	–	–	–	1	2	–	–	–
Headache, &c.	–	2	–	1	4	–	4	9	–	1	–	1	–	–	–	–	5	–	1	1
Inflammation of the Lungs and Pleura	–	3	3	2	12	6	5	4	4	–	–	1	11	6	–	6	10	1	2	5
Phthisis and Hæmoptysis	1	4	1	–	9	2	2	1	1	–	1	–	7	2	–	4	7	–	–	2
Catarrh	3	80	36	67	54	25	52	35	13	43	5	–	52	61	18	105	124	–	6	105
Cynanche	1	43	12	20	36	9	23	24	12	2	1	–	7	2	72	32	24	–	2	19
Asthma	–	–	–	–	–	–	1	–	–	–	–	–	2	–	–	–	2	–	–	–
Functional and Organic Disease of the Heart	–	4	1	–	16	3	8	15	–	–	–	1	2	1	–	3	2	–	–	–
Hæmorrhoids	–	1	–	1	4	–	–	2	–	1	1	–	1	1	–	–	–	–	–	1
Varix	–	–	4	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Stomach and Bowels	–	*a*1	–	*a*1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dysentery	–	3	–	–	4	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1
Diarrhœa	–	32	10	7	25	–	27	30	3	14	–	1	7	3	4	21	21	–	–	19
Cholera	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Constipation and Colic	–	6	2	2	14	3	–	12	–	1	–	–	7	–	–	4	8	–	1	3
Inflammation of the Liver	–	1	1	–	3	–	–	2	–	–	–	–	–	–	–	2	3	–	–	–
Jaundice	–	–	–	4	–	–	4	5	–	–	–	1	1	–	3	10	4	–	–	1
Inflammation of the Kidneys and Bladder	–	1	–	–	–	–	1	1	–	–	3	–	–	–	2	–	2	–	–	1
Syphilis	–	120	6	101	84	1	66	30	17	32	–	5	20	17	2	4	75	2	5	25
Gonorrhœa	–	16	4	5	25	1	15	16	2	3	2	4	5	9	–	4	42	–	2	9
Orchitis	–	10	7	17	31	–	11	12	1	6	–	2	8	–	1	5	17	–	2	10
Stricture	–	1	–	3	–	–	2	–	–	1	–	–	–	–	–	–	1	–	–	–
Incontinence of Urine, &c.	–	–	–	–	–	–	2	7	–	–	–	–	1	–	1	–	1	–	1	1
Rheumatism	2	57	13	35	6	3	31	36	12	9	2	1	17	6	17	6	57	–	4	29
Gout	–	2	–	–	–	–	4	5	–	–	–	–	–	–	–	–	6	–	–	–
Disease of the Bones and Joints	–	1	1	–	9	–	3	–	–	–	2	–	1	–	–	–	–	–	–	–
Inflammation of the Eyes	–	12	2	10	9	4	4	3	3	2	–	–	9	3	4	5	7	–	1	12
Amaurosis and Cataract	–	–	–	1	–	–	–	1	–	–	–	–	–	–	–	–	1	–	–	–
Otitis and Deafness	–	–	1	1	2	–	–	1	–	–	–	–	–	4	2	–	–	–	–	–
Erysipelas	–	–	1	–	3	1	–	1	1	–	–	1	5	1	4	2	–	–	–	2
Scrofula	–	–	–	3	3	–	–	1	–	–	–	–	–	–	–	2	3	–	–	3
Bubo (*Symp.*)	–	10	4	6	16	–	16	16	–	3	2	1	3	–	1	3	5	1	1	7
Phlegmon and Abscess	2	99	51	119	81	101	87	166	16	47	2	4	47	23	101	80	76	4	6	65
Ulcer	–	53	14	35	58	20	47	121	1	10	2	1	25	–	120	59	33	–	–	63
Psora	–	23	1	2	–	21	73	41	13	2	–	2	17	–	35	115	19	–	1	15
Eruptions, &c.	1	14	3	12	21	1	10	13	4	–	–	–	7	–	2	23	8	–	1	4
Dyspepsia and Debility	–	24	10	37	14	2	16	7	2	2	2	1	9	–	–	22	42	1	1	50
Dropsy	–	–	–	–	1	–	–	1	–	–	–	–	–	–	–	–	–	–	1	–
Worms	–	–	–	–	–	–	–	3	–	–	–	–	–	–	–	–	2	–	–	–
Wounds and Injuries	2	81	59	87	134	29	70	151	55	48	3	7	58	72	102	68	97	3	5	7
Burns and Scalds	–	5	2	2	8	3	2	9	–	2	–	1	6	–	8	4	2	–	–	–
Hernia	–	1	–	–	1	–	3	1	–	–	–	–	1	1	1	–	2	–	–	–
Scurvy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Purpura	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Poison	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Asphyxia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TOTAL	13	726	258	591	777	237	600	796	162	236	29	40	342	212	511	613	732	12	41	544

a Hæmatemesis.

- - - - - in each Ship employed on the Home Station—*continued.*

Pembroke.	President.	Resistance.	Revenge.	Rhadamanthus.	Rolla.	Rosario.	Royal Adelaide.	Russell.	St. Vincent.	Saturn.	Sealark.	Shannon.	Squirrel.	Trafalgar.	Trincomalee.	Victoria and Albert.	Victory.	Vigilant.	Virago.	Warrior.	Wellesley.	Winchester.	TOTAL.
-	-	3	1	-	-	-	18	3	4	-	3	-	1	41	-	-	39	4	4	1	1	-	295
2	1	-	7	1	-	-	3	1	1	-	-	2	-	18	-	-	-	-	4	5	4	-	121
-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	1	-	-	27
1	-	-	1	-	-	-	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19
-	-	-	-	-	-	-	1	-	-	-	-	b1	-	-	-	-	-	-	-	-	-	-	10
7	-	2	1	2	-	-	7	4	1	-	-	2	1	3	-	-	-	2	2	-	-	-	4
-	-	-	1	-	-	-	2	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	75
-	-	2	3	-	-	-	6	-	-	-	-	2	-	1	-	-	9	-	1	-	1	-	20
10	-	-	1	-	-	3	-	1	-	-	-	-	-	2	-	1	6	2	1	7	5	-	68
-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	3	-	-	-	-	-	18
4	-	2	16	1	-	-	16	3	3	2	-	10	3	6	1	4	27	-	1	8	3	-	303
2	-	3	9	1	-	2	7	-	1	-	1	-	1	5	1	2	12	1	1	3	1	-	143
29	9	22	174	24	5	14	65	22	92	6	23	33	8	158	2	19	68	4	39	42	56	2	2,618
9	-	6	15	2	-	7	11	20	6	-	4	19	-	71	-	15	31	3	7	36	3	1	924
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	11
1	-	2	6	2	-	6	22	-	2	-	-	2	-	2	-	2	19	-	5	11	6	-	195
-	1	-	1	-	-	2	3	-	1	-	-	1	-	11	-	-	2	3	3	3	-	1	65
-	-	-	2	2	-	-	6	-	-	-	-	-	-	1	-	-	-	-	-	-	2	-	26
-	-	-	-	-	-	-	2	-	-	-	1	-	-	1	-	-	2	-	1	c4	-	-	21
-	-	-	2	1	-	-	2	1	-	-	-	1	-	-	-	-	2	-	-	-	-	-	23
4	6	2	15	8	-	8	9	4	12	2	1	7	2	14	-	3	28	-	4	38	2	1	558
-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
1	-	6	5	1	-	15	2	3	4	-	3	3	2	1	1	3	10	2	2	18	-	-	207
-	-	-	-	-	-	-	1	-	-	1	-	-	-	1	-	-	1	-	1	1	-	-	30
-	-	1	-	-	-	-	1	-	1	-	-	-	-	1	-	-	2	-	-	1	2	-	54
-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	1	3	-	-	22
19	-	41	143	8	-	5	146	1	2	-	7	89	-	132	-	-	199	20	37	120	13	-	2,255
6	-	3	27	5	-	8	80	-	8	-	2	4	-	11	-	2	40	3	10	19	6	-	723
8	-	7	11	2	-	-	23	4	2	-	1	15	1	26	2	-	24	5	6	20	1	-	429
1	-	-	2	1	1	-	9	-	1	1	-	1	-	6	-	2	5	1	-	1	1	-	63
-	-	-	-	-	-	-	2	-	1	1	-	-	-	1	-	-	-	-	-	-	3	-	29
13	-	30	58	10	-	11	24	5	12	-	12	51	1	136	3	16	75	11	11	58	14	4	1,365
-	-	1	1	-	-	-	-	-	1	-	1	-	-	3	-	1	-	-	-	-	-	-	38
1	-	2	4	-	1	2	6	-	1	-	-	1	-	1	-	-	1	-	9	4	1	-	67
5	-	5	9	-	2	1	11		2	1	2	4	1	16	-	2	11	2	1	9	3	-	280
-	-	2	-	-	-	-	3	-	-	-	-	1	-	1	-	2	-	-	-	1	3	-	18
2	1	-	-	-	-	1	-	-	1	-	-	2	1	-	-	-	12	1	2	5	2	-	55
-	-	1	1	-	-	-	1		3	-	-	3	-	-	-	-	4	-	-	1	-	-	51
-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	3	-	1	-	1	-	35
8	-	7	22	-	1	4	19		5	-	4	12	-	2	-	4	14	3	3	8	9	-	305
52	-	61	146	6	27	50	46	1[illegible]	46	2	37	95	29	266	1	8	86	21	50	241	58	1	3,501
25	1	7	108	1	3	21	35	1	97	2	18	53	13	114	-	6	78	10	19	89	33	-	1,776
12	-	-	66	3	1	-	71	11	62	-	-	33	1	60	-	2	113	-	8	32	17	1	1,269
3	-	-	30	-	1	-	15	1	37	1	2	18	3	8	-	2	21	1	21	37	8	-	465
14	3	7	13	6	-	-	12	1	10	1	3	11	1	94	1	8	25	1	11	8	5	1	844
-	-	-	-	-	-	-	-	-	2	-	-	2	-	-	-	-	4	1	-	3	1	-	32
-	-	1	-	-	-	-	-	-	-	-	-	3	-	-	-	-	1	-	-	1	-	1	16
54	-	57	227	17	15	30	33	37	91	4	30	100	20	197		13	107	28	82	249	45	-	3,821
1	-	1	2	2	-	-	3	3	9	-	1	4	-	1	-	-	4	1	3	6	1	-	153
3	1	1	2	-	-	-	3	-	-	-	2	3	-	2	-	-	3	-	1	1	-	-	48
-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
297	23	286	1,133	106	57	191	733	149	521	24	159	589	89	1,425	13	118	1,091	130	352	1,095	312	15	23,041

b Coup de soleil.

c Melæna.

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The Mediterranean Squadron, in 1862, consisted of thirty-two vessels. In this number were comprised one first rate, eight second rates, one third rate, two fourth rates, one fifth rate, five sixth rates, nine vessels of the sloop class, and five gun vessels of different kinds; there was also the Hibernia, the flagship of the Admiral Superintendent of Malta Dockyard, the receiving ship of the station. The mean force corrected for time was 9,950. The total number of cases of disease, and wounds and hurts, during the year was 15,423, of which 350 were invalided, and 97 died. The ratio of cases was 1,550 per 1,000 of mean force, of invalidings 35·1, and of deaths 9·7, being, as regards the ratio of invalidings, a decided improvement as compared with the previous year, while there was also an improvement, although to a less extent, under the other heads.

The sick rate in the different ships was much the same as in 1861, ranging from twenty and twenty-four to seventy and eighty per 1,000 of mean force. The most healthy ships appear to have been the Suprise, the Marlborough, and the Malacca, while those in which there was the largest sick rate, were the Fireband, the Queen, and the Shannon. The sick rate in the Procris was as low as 8· per 1,000, and that in the Banshee 20·, but these are very small vessels, employed on particular service, and not to be brought into comparison with the ordinary ships of the squadron.

The loss of service from febrile diseases, including the exanthemata, was equal to forty men daily, or in the ratio of about 4· per 1,000, which is exactly the same as obtained in the previous year. The loss from affections of the nervous system was equal to about six men daily; from affections of the respiratory organs it was about forty-six, or in the ratio of 4·4 per 1,000, an improvement as compared with the preceding year of nearly four in 1,000. There was a daily loss of service equal to about nine men from diseases of the heart and blood vessels, or under one in 1,000. From diseases of the abdominal viscera the loss was in

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in the ratio of 1·7 per 1,000; while from diseases of the reproductive organs, it was almost exactly the same as had obtained during the two previous years, viz., 7·5 per 1,000. The loss from rheumatism was in the ratio of 5·1 per 1,000, and from diseases of the special senses, ·5. From boils and ulcers the loss was equal to 157 men daily, or in the ratio of 15·7 per 1,000, almost precisely the same as in the previous year. The loss of service from wounds and injuries was in the ratio of 9·6, or an increase of 2· per 1,000, over that of 1861.

Fever.—Under the head of continued and remittent fever 737 cases were treated, of which twelve were invalided, and twenty had a fatal termination. The total days' sickness from these cases on board ship and in hospital, gave an average of 16·8 days to each case.

In the Alacrity, a small sloop with a complement averaging about ninety-five men, there were eleven cases of fever, chiefly of an ephemeral character.

There were seventy-two cases of these fevers in the Algiers, of which six had a fatal termination. During the greater part of the year this ship was stationed at Naples, and she also for some time lay at Corfu. Almost all the cases that terminated fatally were accompanied with well marked enteric symptoms. In three which died at Malta Hospital, post-mortem examination disclosed the pathognomic lesions of specific typhoid fever, and in one of these the ulceration of the intestines had caused perforation with all its fatal consequences. Most of the other cases are said to have been of a mild character, many of them terminating in five or six days: in some, however, the convalescence was very protracted. The total number of days' sickness on board ship from all the cases, gave to each an average of nearly seventeen days' treatment.

There were eighteen cases of primary fever in the Amphion, one of which proved fatal in hospital. Fifteen of these cases occurred at Gibraltar during the first quarter of the year, and of these nine were of a more or less severe character, the remainder being ephemeral. Of the severe cases the first and fatal one occurred in the person of a lieutenant, who was placed on the sick list at Gibraltar on the 13th of January, with rather severe febrile symptoms; he had been ailing for about ten days previously, but only suffered from slight general malaise. During a part of this period the

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the ship was at Lisbon, where he first felt unwell. The chief symptoms in his case were, at first, nausea and vomiting, severe headache and great irritability of the bowels: the tongue was dry and coated with a red streak down the centre. On the fourth day there was some wandering delirium, and the debility became excessive. On the 6th day he was sent to the Military Hospital at Gibraltar; there he seemed for the first ten days to be making progress, very slowly, however, and not to any extent. On the 1st of February there was an accession of fever, preceded by a slight bronchitic attack: both the fever and the cough disappeared, however, in a few days, but they reduced him very much. On the 9th of February symptoms of brain disease became evident; his articulation, which for a few days previously had been somewhat affected, "was then positively impeded; he had difficulty in commencing the shortest sentence, and he paused with a look of vacancy as soon as two or three syllables had been pronounced. Accompanying this there was the most extreme degree of prostration." From this state he partially recovered in a day or two, but on the 12th February, there was active delirium, with hallucinations. These symptoms disappeared and returned again, and there was little other alteration in his general condition until the 17th, when there was a decided change for the worse, and from that date until the 23d, when he died, all his symptoms were those of extreme prostration. He lay quite unconscious of what was going on around him; the head sunk down on the pillows; the expression of the face that of complete fatuity; the pulse hardly perceptible; the skin reduced in temperature; the evacuations passed involuntarily. "When addressed, he looked up with a vacant expression, attempted an incoherent reply, and then the eyelids drooped, and the attempt to articulate ceased." The cerebral symptoms were so marked during the latter stages of this case, that it was expected that abscess, softening or tubercle would be found after death. No change of brain structure, however, was discovered on post-mortem examination, but there was much serum at the base of the brain and in the ventricles, and general inflammation of the arachnoid membrane, with deposit of lymph on its upper and anterior surface.

Of the remaining severe cases, the majority were characterised by well-marked remissions during their progress. In two there was lung complication, one being bronchitic, and the other of a phthisical character. In one case, that of the acting commander, there was much bowel affection, with, latterly,

latterly, some iliac gurgling, but there was no tenderness on pressure anywhere over the abdomen, nor any typhoid eruption. In this case also there were accessions and remissions of fever, although they were not well marked. In one case the seizure was ushered in with neuralgic pains of the head and face; and in another the febrile attack was evidently connected with a severe attack of intermittent fever contracted some months previously on the coast of Syria: in all the cases convalescence was very protracted. The majority of these seizures occurred amongst the ward-room officers between the 14th of January and the 19th of February. The surgeon of the Amphion,* in his general remarks, says, "We left Gibraltar on the 22d (December 1861) for Lisbon, arriving there on the 25th. The climate in the Tagus was raw and cold, with mist and drizzle nearly all the time we were there. Remittent or typhoid fever slightly prevailed in the river, although the cases, excepting amongst the royal family, were not numerous on shore. Amongst them, however, it proved so fatal that serious disturbances took place amongst the populace, who were under the impression that the deaths were occasioned by poison. We had no communication with any of the ships said to be affected. From Lisbon we returned to Gibraltar on the 7th of January. On the 14th fever made its appearance in the person of a lieutenant, and before the end of the month five out of the eleven members of the ward-room mess were attacked. It was difficult to account for this, as very few cases occurred amongst the ship's company, and only one in the gun-room. The convalescence in every case was very slow." Elsewhere he says, "I cannot account for the fever in the ship in any other way, than that we had a good deal of moist foggy weather from the middle of November until well on in January, and that the decks were seldom dry. The probable reason that the officers were more affected was that their cabins were closer and not so easily ventilated as other parts of the ship, there being no stern ports in the after ward-room."

The assistant surgeon,† who was one of the sufferers on this occasion, makes the following remarks: "During the last six months several cases of fever occurred. The first person attacked was a lieutenant; he had well-marked symptoms of typhoid fever, with brown tongue and peculiar fetor of

* Surgeon George Gordon. † Assistant Surgeon B. Gregory.

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of breath; as soon as his tongue began to clean he was sent to hospital at Gibraltar. The other cases, with the exception of a boy and a marine, occurred amongst the officers of the ship. Every precaution was taken to prevent the infection spreading; the officers were removed to the captain's cabin (which was unoccupied at the time), and the ward-room was thoroughly cleansed and purified with the chlorides of lime and zinc, and the vapour of chlorine. By order of the senior officer at Gibraltar, the after-hold was cleared, and the after-part of the ship thoroughly purified. Each case was sent to hospital as soon as possible. As to the source of infection, I believe the officer first attacked received the seeds of the fever at Lisbon, and on his return to Gibraltar the disease fairly declared itself; the other cases, including myself, were infected by him." With reference to the cleansing of the ship the surgeon states, that "The ward-room and cabins were cleared out, cleansed, whitewashed and fumigated with chlorine, and the whole of the after-part of the ship, including the bread-room, spirit-room, slop and store-rooms, were treated in the same manner. The holds to the kelson were carefully examined, and found perfectly dry and free from smell."

The precise nature of the fever which appeared on board the Amphion at this time is not easily ascertained. Both of the medical officers of the ship, however, seem to regard it as enteric fever, although in the large proportion of the cases which are given as illustrations of the epidemic, the most characteristic feature they appear to possess is a decided periodicity. In two cases there was distinct bowel complication, but in none was there any characteristic eruption. On stations where malarial fevers abound, however, there will usually be much difficulty in discriminating between a continued and a remittent fever, unless the specific character of the continued fever is well-defined; the stamp of periodicity will in such localities be found to be more or less impressed upon all febrile diseases, so that in mild cases of specific fever it is almost impossible to distinguish between what is essential and what accidental. During the previous year the Amphion had been stationed for a very long time on the coast of Syria, and was occasionally in localities, such as Alexandretta, notoriously unhealthy. The ship's company had suffered in consequence from malarial fevers, and the deleterious influence exerted upon them would be very liable to cling to them for an indefinite time, and to evidence itself on comparatively slight exciting causes. The raw cold drizzling weather they encountered

tered in the Tagus would be quite sufficient to have this effect, but it is certainly remarkable that these cases should have occurred almost exclusively amongst the officers, and it is very significant that two of them were of a decidedly enteric character.

The cases of primary fever occurring in the Banshee and Cockatrice, two small vessels, the one stationed at Constantinople and the other in the Danube, were few and of no importance.

There were 120 cases of primary fever in the Doris. A large number of these occurred during the first quarter of the year, when the ship was stationed on the coast of Syria. With few exceptions they were of a trivial character. The total number of days' sickness from these cases gave an average to each of eleven days' treatment on board ship; in some, however, convalescence was exceedingly tardy, and prolonged by the supervention of rheumatic pains: two cases of enteric fever occurred at Corfu, one of which proved fatal.

In the Exmouth there were fourteen cases of fever, all of which are returned as remittent. The total period during which they were under treatment gave an average to each case of twenty-three days. One of the cases proved fatal on the twelfth day, in the British Hospital at Naples. The man had suffered from a severe and long continued attack of fever during the preceding summer, his convalescence being very tardy; he had quite recovered, however. The attack which carried him off was characterised by severe headache and pains in the back and limbs of such a nature as to lead to the suspicion that he was about to have an attack of small-pox, a few cases of which disease had appeared on board. There was no sign of eruption, however, at any time. The remissions were very decided at first, the constitutional disturbance almost altogether abating, the pulse becoming of natural force and frequency, and the skin being cool and perspiring. During the evening, however, exacerbation came on, and all night he was hot, feverish, sleepless, and occasionally delirious. Thereafter he lay on his back staring fixedly upwards with dilated pupils. He could be roused to answer questions rationally when loudly spoken to, and he lay apparently perfectly awake, but indifferent to or unconscious of what was going on around him. The skin was constantly bathed in perspiration, and the pulse kept about 100. In this state he was sent to hospital, where he died seven days afterwards.

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There were seventy-one cases of fever of a continued or remittent type in the Firebrand. They were on an average about nine days under treatment. More than one-half of the cases occurred on the coast of Syria during the Christmas quarter, when fever in an epidemic form made its appearance, and continued from the 28th of October to the 11th of November. During this interval a large number of cases were added to the sick list, the principal symptoms being furred tongue, intense headache, great prostration, and in some, diarrhœa. The same kind of fever was prevalent on shore at the time, but there were no cases of it either in the Mars or the Surprise, which were at anchor close to the Firebrand. In consequence of this outbreak a survey was held upon the state of the ship, but nothing could be detected to account for the sickness. It was recommended, however, that she should be sent to some other part of the Mediterranean, and she was accordingly ordered to Malta. The cases began to diminish immediately the ship went to sea. When at Malta she was docked and thoroughly examined, but nothing to which the outbreak of fever could be traced was found.

The Firefly, the Foxhound, and the Gannet, suffered very little from these diseases. In the Firefly, a small surveying vessel, there were only seven cases of primary fever, and of these, three were of an ephemeral nature. The remainder were of the remittent type, contracted on the coast of Syria. One of them proved fatal. In this case the man had been employed on surveying duty away from the ship, and had felt unwell on the day after returning on board. He did not complain, however, for some days afterwards, when the fever was very urgent. He was a weakly man, and had suffered severely some years previously by a fall from aloft. Under treatment the disease seemed to be subdued, as for two days there was perfect apyrexia. Prostration suddenly set in, however, and despite stimulation he rapidly sank. There were only two cases of ephemeral fever in the Foxhound; and of the thirteen cases returned by the Gannet, twelve were of a trivial character, their average duration on the sick list being only about five days.

Of seven cases returned by the Hibernia, the receiving ship at Malta, one was a case of remittent fever, three of typhoid or enteric fever, and three were of an ephemeral character. With reference to the cases of enteric fever, the surgeon

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surgeon* says, "There were three cases of typhoid fever in the Hibernia, in the months of May and June. All of them were sent to hospital, and one proved fatal there. During calm hot weather, all people living in Dockyard Creek are more or less exposed to the causes of typhoid fever, as the creek becomes little better than a large cesspool, and gives forth the most offensive emanations. Three considerable towns pour their sewage into this creek, through which there is no current, and it is surprising that the consequences of sewage poisoning are not more felt. The Hibernia lies near the mouth of the creek where the noxious gases are less concentrated; but as the ship itself is clean and dry, and well ventilated, and thus is free from the causes of typhoid fever, I must attribute the cases that appeared in May and June to the tainted state of the atmosphere in which the ship is placed."

There were eighty-five cases of primary fever in the Icarus, thirteen of which were sent to hospital. The average duration of each case on the sick list on board ship was six days, so that it may be assumed a large proportion of them were of a trivial character. The cases were tolerably equally spread over the year, twenty-four occurring in the first quarter, twenty-two in the second, twenty-six in the third, and thirteen in the fourth. Of those sent to hospital some proved mild, and only required a few days of the comfort and quiet of such an establishment to restore them to health; others were sent in while in a convalescent state, with a view to hasten their recovery; these were chiefly of a remittent type. One case occurring in the person of a midshipman, was complicated in hospital with a large perinæal abscess, which so reduced the patient as ultimately to necessitate his being invalided. The cases of remittent fever prevailed most on the coast of Syria. With reference to some cases of fever occurring during the Michaelmas quarter, four of which in a convalescent state were sent into hospital, the surgeon of the Icarus† makes the following observations: "In the treatment of this fever, the medical men on the coast of Syria are opposed to the use of stimulants; but I found them absolutely necessary on board ship, and in no case have I seen their employment interdicted by untoward effects. The debility following the active stage of the disease was often extreme,

* Surgeon T. Russel Pickthorn.
† Surgeon J. Denis Macdonald, F.R.S.

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extreme, and when combined with an irritable nervous system and want of sleep demanded the judicious use of stimulants on the one hand, and sedatives on the other. The delirium was always of a mild kind, scarcely exceeding a marked incoherence and confusion of ideas; and although headache was often considerable, the pupil never indicated any decided irritation within the cranium. Henbane and morphine were, therefore, advantageously prescribed at night, either by themselves or in combination with salines. Pouring a stream of cold water on the head was more grateful and beneficial than the usual method of applying cold lotions with a folded cloth, which require more constant care. Quinine did not appear to be of much service, unless the disease assumed the remittent type; indeed, unless this were the case, it was likely to produce headache and derangement of secretion. The alphabetical daily sick book shows the liability of persons once affected to a recurrence of febrile symptoms, though far removed from any assignable cause, and three out of the four hospital cases relapsed into ardent fever, even after they had been for several days steadily improving in the institution. Here it is evident that the cause must have been in abeyance in the systems of the patients themselves." A reference to the sick book shows that seventeen persons had each two seizures; two were each three times attacked; one had four attacks; one, five; and one, seven. The majority of these attacks are entered as febricula.

There was only one mild case of continued fever in the Intrepid. It was somewhat tedious, however, in its progress to cure, the patient having been fourteen days under treatment.

There were fifty-three cases of primary fever in the James Watt, almost all of which occurred during the first two quarters of the year, when the ship was stationed at Naples. The majority of the cases seem to have been of a remittent type, and many of them were accompanied with very urgent symptoms. About a third were of a comparatively trifling character. The total days' sickness gives an average of fifteen days' treatment to each case on board ship. The surgeon and senior assistant surgeon were both laid up with the fever; but from the junior assistant surgeon,* the following information is derived relative to forty-one of the cases (five of which, he says, were of an aguish character), which had presented

* Dr. D. A. Moxey.

presented themselves up to the time of his report: "Besides its relapsing nature, the malarial fever which occurred at Baiæ was further distinguished by various complications taking place during the progress of the disease, and by different sequelæ marking the convalescence and retarding it. Of the forty-one cases, eleven had well-marked relapses, generally two in number, occurring at intervals of seven days, and lasting from twenty-four to forty-eight hours. The primary fever generally lasted from three to seven days. Of the remaining thirty cases, only five were intermittent fever, and all of the quotidian variety. But it is a point worthy of remark, that in each of these cases the patient had previously suffered from ague, and that in not one of the cases marked by relapses had ague ever existed. Eighteen cases of the remaining twenty-five were so slight as scarcely to be distinguished from mild attacks of common continued fever, except in their ingression, which was marked, but in a less violent form, by the symptoms already described as distinctive of the incursion of the relapsing type of the disease. The remaining seven cases were distinctly typhoid in character, and but for the absence of any eruption might have been mistaken for typhus. In seven cases the disease was complicated with bronchitis, which, in three instances, went on to pneumonia. In seven cases delirium existed, and the convalescence in each of these cases was marked by a condition almost amounting to imbecility, which seemed to have a great influence in protracting recovery. In seven cases, cinchonism was induced, and in each instance by what appeared inadequately small doses of the disulphate of quina. But in connection with this remark, the following fact is worthy of observation, that cinchonism only occurred in relapsing cases, whereas in the intermittent cases there was perfect toleration of the quina. Furthermore, the relapsing form of the disease always appeared to be greatly aggravated by the use of the quinine, and more particularly so by the occurrence of cinchonism, increase of the febrile symptoms, and delirium supervening, and imbecility retarding the convalescence. In fact, the cases in which delirium and imbecility occurred were those in which cinchonism was induced, and it was not until after the establishment of that condition that these untoward symptoms occurred. Rheumatism marked the convalescence of two cases; in the one instance being acute, and in the other chronic. In one case, all the above complications occurred with the exception of rheumatism, and there existed in addition anasarca and pyæmia. In one case, petechiæ

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were present." The two last cases seem to have been of a very urgent character. In the former, which is said to have been complicated with anasarca and pyæmia, the patient was a marine, who for more than a week seemed to be beyond all hope of recovery. "The disease was marked at first by severe head symptoms, then successively by acute bronchitis, with low muttering delirium, terminating in pneumonia, anasarca of left leg, pyæmia, with formation of circumscribed abscesses under the scalp, and in the right ear." In the other case, there was low muttering delirium and pëtechiæ over the body. Cinchonism had been induced by two grains of quinine administered three times. In many of the mild cases it would appear that the resulting convalescence was greatly disproportioned in duration to the severity of the attack, the debility being very great, long after all active febrile symptoms had ceased. The ship left Naples on the 30th of April for Malta *en route* for England. There were no cases of importance afterwards, and she was put out of commission on the 21st of June.

In the London there were thirty-nine cases of fever of a continued or remittent type. One of these proved fatal. In this instance the disease was contracted at Gibraltar, where the patient, a marine, had been on picquet duty on shore. He died fourteen days after being placed on the sick list, and, from the nature of the symptoms during life and the post-mortem appearances, the case was undoubtedly one of enteric fever. "In the lower portion of the ileum, Peyers patches were enlarged, and hardened with deposit, and many were denuded of the mucous membrane, and ulcerated. This was more particularly the case close to the ileo-cœcal valve." The Returns give little or no information with regard to either the causes or nature of the other cases; but it appears from the total days' sickness resulting from all, that each had an average treatment on board of about fifteen days. The largest number of cases occurred in the Michaelmas quarter, when the ship was stationed at Naples, when twenty-three were placed on the sick list. They were all treated on board, and the total days' sickness from them amounted to 481, being an average of nearly three weeks to each case. Some of these appear to have been cases of enteric fever.

There were only six cases of fever in the Magicienne. They were, the surgeon* says, "all mild attacks of febricula, not

* Surgeon J. G. T. Forbes.

not exceeding in their duration a week or ten days, with two exceptions, in one of whom well-marked typhoid symptoms developed themselves, and he was removed to hospital. In the other the symptoms were much less marked, but I likewise sent him to hospital, as a precautionary measure, the typhoid occurring on the station often advancing insidiously, and occasionally terminating in fatal peritonitis, the result of perforation."

Only one case of primary fever is returned by the Malacca, but it had a fatal termination. The disease was contracted on the coast of Syria, and the patient was a miserably cachectic subject who had been repeatedly in hospital with a variety of complaints. The case seems to have been one of a low remittent character, and he died on the fourteenth day after presenting himself. He had felt unwell, however, for several days before he made any complaint. For some days before his death there was a good deal of delirium of varied character.

In the Marlborough there were fifty-seven cases of primary fever. Forty-eight of these were of an ephemeral nature, only confining the patients on an average from three to four days. The others were chiefly varieties of remittent fever, in some with the symptoms of a tolerably active character. In the Mediterranean the term fever is not unfrequently applied to a train of symptoms of so anomalous and obscure a nature as perhaps would justify their being classed rather as cases of climatic cachexia than of fever, strictly so called. There are certain features, however, attached to them which clearly indicate their origin. With reference to these cases the surgeon* of the Marlborough makes the following remarks: "While it has frequently been remarked, that the convalescence from fevers in Malta, and in the Mediterranean generally, is exceedingly tedious, and that the system gets into a low condition, from which it is difficult to raise it, it will also occur to the medical officer to meet with cases in which a cachectic state of the system is begotten without being associated with or ushered in by any active disease whatever. Thus we have at different times had cases where it was necessary to suspend the patients from duty solely on account of slowly progressing debility. Perhaps the most notable of these cases was that of an officer who had suffered much in the beginning of the year from gradually increasing weakness. His

* Dr. A. E Mackay.

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His appetite became defective, and he was hypochondriacal to such an extent as occasionally to have slight mental delusions. He was at once discharged to Malta Hospital, where, after remaining for a short time, he appeared to have improved so far, and he had acquired so much strength, that he was discharged cured, and rejoined us. He did not, however, rally in such a way as to show that anything more had been effected in his case than the removal of the mental affection that was, no doubt, increased on board ship by the difficulty that was experienced in separating him from his duties. Debility continued to be very marked with him. He had for a length of time eruptions of purpura simplex on his legs; his gums became exceedingly spongy and irritable, and ultimately ulcerated, and on one or two occasions he had epistaxis. Great relaxation of the muscular system generally was accompanied by a very annoying affection, viz., varicocele, to such an extent as almost to debar him from taking the little exercise he felt disposed to take. His sleep at nights was disturbed, and, mentally and physically, he was altogether much depressed." . . . . "This species of cachexia, although not often in such an aggravated degree, is by no means uncommon on this station. It is a condition begotten by climatic peculiarities, and is certain to exist where there is much variety of temperature, with a preponderance of heat and moisture. Nothing is more striking in miasmatic diseases than the anæmic condition they induce, and that in a very short time. It is, in all probability, to this depraved state of the blood that the tedious convalescence in such cases is due. I have frequently, on surveys, seen men brought forward and invalided for mere debility, following fever. There was no rallying their constitutions, and in all probability they never would have improved on this station. The danger also was great that an attack of active disease would most probably carry them off. We have often been obliged, also, to invalid patients for obstinate rheumatism, consequent upon remittent fever; and in these cases, also, the anæmic condition of the patients was very great." The officer whose case is referred to above was subsequently invalided, an attack of remittent fever, with peculiar head symptoms, rendering his removal from the station absolutely necessary. The cases of remittent fever which were under treatment in this ship were each, on an average, upwards of three weeks under treatment on board, and nearly one-half of them were afterwards sent to hospital.

Twenty-five cases of fever of a continued or remittent type

are

are returned by the Mars. They were almost all contracted on the coast of Syria, where the vessel was stationed during nearly the whole year. The surgeon states that, as a general rule, they were of a low nature, inducing great debility, and having very imperfect remissions. An analysis of the Returns shows that their average duration on the sick list on board was thirteen days.

Only one case of fever is returned by the Medina. It was of a remittent type, and was placed on the sick list, while the ship was at Malta. The case was one of some severity, and was sent to hospital.

Twenty-five cases of fever, all of a continued character, appear in the Returns from the Neptune. The average number of days each was under treatment on board was upwards of twenty. There was no mortality from this fever; but some of the cases were of great severity. They are stated by the medical officers to have all been cases of enteric fever, and, in a large proportion, the distinctive rose-coloured eruption was present on the abdomen. There was a tendency to diarrhœa in all. The surgeon of the Neptune* says the fever "was of the pure typhoid type, the great majority of cases presenting the characteristic roseolous spots on the abdomen; and it did not fall to my lot to see a well marked case of genuine 'remittent' while I was in the Mediterranean. As a general rule, the patient was free from delirium, and other alarming symptoms; but the disease dragged its slow length along for a period of from three to five weeks, marked chiefly by prostration of strength, loss of appetite, and a tendency to diarrhœa." . . . . "With regard to the origin of the disease there can be little doubt that in the Mediterranean, as elsewhere, it proceeds from the emanation of animal poison, produced by deficient sewerage, and that its occurrence on board a ship corresponds with its prevalence among the inhabitants on shore." Rheumatism accompanied and very much retarded convalescence in a large number of these cases. In reference to this, the surgeon remarks: "Convalescence from this disease was exceedingly slow, and a peculiarity connected with it was a gradual coming on of a rheumatic affection, which sometimes attacked several joints, but for the most part settled in one of the hips. This sequela of fever was very intractable, and resisted the use of all the remedies employed in the cure of rheumatism. Repeated

* Surgeon R. Pottinger.

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peated blistering and full doses of the preparations of iron proved on the whole the most efficient treatment."

There were ten cases of primary fever in the Pelican, three of which were contracted during the second quarter of the year, when the ship was, for the most part, stationed on the coast of Greece; of the remaining seven cases, six were contracted at Malta, and the seventh at Corfu. The total days' sickness gave an average of twelve days' treatment to each case on board ship. Five, however, of the ten cases were sent to hospital, so that no correct idea of the loss of service from this disease can be formed from such an average. The surgeon of the Pelican* makes the following remarks on these cases: "During the summer months several cases of fever occurred. The first were noticed in April and May while the ship was lying at the Piræus, and employed amongst the Greek Islands. Three cases then appeared, which assumed more of the remittent character than any other form. I believe the origin of these cases can be traced to the malaria in the neighbourhood of the Piræus. The men were frequently landed to drill upon a low-lying piece of ground near the harbour, and, I believe, were there exposed to the fever poison. Six of the other cases which have been entered in the Return as cases of continued fever happened at a later period, when the ship was lying in Dockyard Creek, Malta Harbour. In these cases the fever assumed a form which I consider was more nearly allied to the typhoid than any other type, although there were no spots on the skin. The origin of this fever was undoubtedly local, and I have no hesitation in attributing these cases to the emanations from the drains and sewers of the Isola portion of the town, which entered the harbour within a few yards of where the ship was lying. The smell from these drains is always most offensive, but especially during the summer months. At this time (June) thunder-showers are frequent, which flush the sewers, and carry down into the harbour the filth which has been accumulating for months before; the gases of putrefaction and fermentation escape in large quantities along the whole course of these drains, and render all the houses in the neighbourhood as well as in the creek itself most unhealthy. Typhoid fevers, often fatal, prevail amongst the inhabitants of these parts of the town at this season. The water of the creek itself is heavily laden with putrid

* Dr. J. C. Messer.

putrid organic matter, which under the high temperature of summer emits a most offensive smell, and usually give off poisonous emanations to a great amount; and the absence of a tidal movement in the water tends much to increase the evil; that this was the origin of the fever on board the Pelican was evident, not only from the character of the fever itself, but also from the facts that the first case occurred eight days after taking up the position near these sewers, and so soon as the ship was removed from the neighbourhood, no more cases appeared."

Of sixteen cases of primary fever returned by the Queen, three had a fatal termination. The total days' sickness from all the cases gives an average of about twenty-five days' treatment on board to each. Seven of the cases, however, were sent to hospital, and it may therefore be presumed that they were all of some severity. During almost the whole year the ship was stationed in the Ionian Islands or on the coast of Greece, and from the detailed reports of such cases as are given in the journal the fever seems to have been enteric. No remarks whatever are made by any of the medical officers of the Queen upon these cases.

Only two cases of primary fever are returned by the Scylla. They were both contracted at Gibraltar, and both were transferred to the military hospital there. One of these was a well-marked case of enteric fever, characterized by diarrhœa, pain on pressure over the right iliac fossa, with gargouillement, and the specific rose-coloured spots over the abdomen. Enteric fever appears to have been prevalent in Gibraltar at the time this man was taken ill, and he doubtless contracted the disease on shore, having been brought off drunk from a locality in which there were many cases.

There were only three cases of primary fever in the Shannon, all contracted at Corfu, and all, according to the statement of the surgeon,* of a typhoid type. "Fever of a typhoid type," he states, "was prevalent at Corfu in the month of October, especially among the soldiers' wives and children. Two of the cases were not of a serious character; but the third assumed at one time a dangerous aspect from the great prostration of strength. This case was ushered in by a smart attack of diarrhœa, which was characteristic of the cases which prevailed on shore." The total number of days'

* Surgeon W. Lawrence.

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days' sickness gave an average of thirty-one days to each case.

Of eight cases of primary fever returned by the Surprise, only one was of great severity, and it occurred in a phthisical subject, and was complicated with profuse hæmoptysis. The other cases were soon convalescent, their number of days' sickness ranging from four to three weeks. All the cases, with one exception, occurred while the ship was at anchor off Beyrout.

There were seventeen cases of primary fever in the Trident, fifteen of which occurred during the Michaelmas quarter, when, in consequence of certain repairs being required in connection with her machinery, she was moored in the Dockyard Creek at Malta; during a portion of this time also she was in the dry dock. The majority of these cases were of a comparatively mild nature, but two of them had a fatal termination; of these one died in the Naval Hospital at Malta, and the other at the Military Hospital at Corfu. In both post-mortem examination revealed the characteristic lesions of enteric fever. The surgeon attributes these cases to the exposure to which the men were subjected during the repairs, to the imperfect ventilation on board, consequent upon one side of the ship being lashed against the dockyard wall, and to the breathing of the noxious exhalations from the open-mouthed sewers which empty themselves into the creek.

Of thirty-two cases of primary fever appearing in the Returns from the Victor Emmanuel, twenty-nine were of an ephemeral nature. The remaining three cases, however, were of a very severe and protracted character: although two of them were ultimately discharged to hospital, the total days' sickness on board ship gave an average of upwards of two months' treatment to each. In one of the cases there was a good deal of diarrhœa, with cerebral disturbance. He was sent to the Military Hospital at Corfu, where he recovered.

There were twelve cases of primary fever in the Wanderer. Of these two are returned as cases of typhus, two of gastric fever, five of febricula, two of remittent and one of continued fever. The total loss of service from all these cases gave an average of about a fortnight on the sick list to each case on board. Both of the cases stated to be typhus, and one of the so-called gastric cases, were however discharged to hospital. The more severe cases were contracted at Constantinople. Both of the cases of gastric fever were characterised by diarrhœa and great irritability of the stomach. The case of continued

continued fever occurred in a man who was under treatment for sympathetic bubo, from which however he had completely recovered, when he had an attack of sore throat, accompanied by rigors and general febrile symptoms. From this state he soon recovered, although a good deal of debility remained. One of the cases of remittent fever occurred at Constantinople. It was complicated with diarrhœa, and during convalescence with neuralgia of the face. The other case presented itself at Latakia, after exposure in marshy districts in search of game. Both cases of typhus refer to one patient, who was in the first place seized at Constantinople, after having been on shore on leave, with acute pain in the right arm, not accompanied by any swelling; the pain extended from the arm down the back; there was much febrile disturbance, and some delirium; sordes appeared on the teeth and gums, but there was no eruption on the body. The left ankle then became swollen and painful, and in this state he was sent on shore to the hospital. About a fortnight afterwards, on the ship being about to leave for Malta, he was brought on board again for a passage to the Naval Hospital. He was in an extremely debilitated state, with several of the large joints swollen, and occasionally delirious. He was ultimately invalided from the hospital. The case presents more of the history of acute rheumatism than of typhus fever.

From all that can be gathered from the various Returns in connection with fevers of a continued or remittent type on this station, it would appear that by far the majority of cases are various forms of simple, continued, or ephemeral fever, affections dependent upon insolation, exposure to climatic vicissitudes, and the various forms of dietetic excesses, to which seamen are so prone: that enteric fever is endemic in most of the large towns on the seaboard of the Mediterranean, and is attributed by almost all the medical officers to the emanations arising from defective sewerage, and that from this cause, also, it is very prevalent during the hot months in the vicinity of the dockyard creek at Malta, into which part of the harbour the sewage from a large and densely populated district is discharged. It appears that this form of fever is liable to attack ships' companies stationed in this locality during these months, and that its source has been distinctly traced to the open mouths of the drains near which the vessels were moored, the disease having appeared shortly after the ship has gone to these moorings, and disappeared soon after leaving them; and as this fever is one of considerable

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considerable urgency, and is that form of this class of disease which causes the largest amount of mortality on the station, it is a matter of no small moment to recognise the causes which operate in its production, so as to avoid them if possible, and where this can be done, to remove them. Whether the sewers which now open into the dockyard creek at Malta could be carried on so as to discharge themselves into the open sea to the eastward of Fort Ricasoli, or into any other less objectionable locality than that which they at present contaminate, may be a question, but there can be no doubt that could this be effected, the results would be in the highest degree beneficial not only to the community residing in the immediate neighbourhood, but to the various ships' companies that may be compelled from time to time to resort to this part of Malta Harbour. Fevers of a remittent type appear to be most prevalent in ships stationed on the coast of Syria. They are occasionally of a fatal character. There is seldom any difficulty in tracing them to their source. Besides these distinct and well-marked febrile diseases, there appears to be a low condition of the system liable to be begotten in the Mediterranean, to which the term Malta fever is not unfrequently applied; a species of cachexia, not necessarily preceded by any active febrile symptoms, and which is considered by some to be dependent upon the same causes as in a more concentrated form, give rise to well-developed periodic fevers. This species of cachexia assumes the most varied aspects, and is sometimes accompanied with profuse perspirations, which reduce the patient to an extreme degree. It is mainly characterised, however, by the steadily progressing debility it occasions, and is almost always associated with great mental depression. Removal from the station seems to be the only reliable treatment in these cases.

Intermittent Fevers.—In the Cockatrice and the Weser, two small vessels stationed during the greater part of the year in the Danube, ague was prevalent during the Midsummer and Michaelmas quarters. In the former vessel there were fifty-three cases, and in the latter 122, and this in a ship's company only averaging sixty-two, officers and men. The medical officer of the Weser* says, "The fever has, almost without exception, recurred in from fourteen to twenty-one days after recovery, and in some instances there have been two or three

* Dr. J. F. Kynsey.

three relapses at a like interval. Diarrhœa, of miasmatic origin, has been also rather prevalent, sometimes accompanying the fever, sometimes preceding it by about fourteen days, and, as it were, taking the place of an attack of fever. Neuralgic headache, no doubt of similar origin, has occurred, for it too has been replaced by an attack of fever, after the usual number of days. Unlike last year, when the vessel came first on the station, there have been distinct intermissions in all the cases this season, the most common type being quotidian."

Eruptive Fevers.—Small-pox prevailed, in a slightly epidemic form, in the Exmouth, and to a greater extent in the Mars. In the former vessel there were eight cases, and two deaths; and in the latter fifteen cases, and one death.

The disease appeared in the Exmouth at Naples, where it was prevalent on shore. All those affected had been vaccinated in early youth, but not afterwards. In both the fatal cases the disease assumed the confluent form. In every case, as the disease declared itself, the patient was removed from the ship to sick quarters on shore, and to this the surgeon reasonably attributes the comparatively brief duration and mildness of the course the epidemic pursued.

In the Mars the disease was contracted at Malta, although it did not appear in an epidemic form until the ship was in the Piræus. Two cases had appeared in the preceding quarter, and one of them had been discharged to Malta Hospital; the other, which presented itself at the Piræus in the middle of December 1861, was a mild case, and the surgeon, thinking that he could safely segregate and treat the patient on board, did not recommend his being sent on shore. The disease, however, attacked a drummer boy, who was taken ill on the 3d of January; he also was treated on board: but a third case making its appearance on the 2d of February, and proving confluent, was landed at the quarantine ground of the Piræus, where the patient died on the following day. The disease continued to spread until the end of the month, up to which time thirteen cases had been landed. No cases occurred after the 28th of February. Fresh vaccine lymph having been procured at Athens, fifty officers and men were re-vaccinated, with four successful results; and from these 200 more of the ship's company were re-vaccinated, with only one successful result. Altogether 400 persons were re-vaccinated. with five successful results. Of the fifteen persons attacked during this epidemic, thirteen presented

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sented vaccination marks; in one the mark was doubtful, and in another there was no evidence that the patient had ever been vaccinated. Single cases of small-pox occurred in the Algiers, Hibernia, London, Marlborough, and James Watt. There were two cases in the Neptune, and four in the Queen. In almost all these cases the disease was contracted either at Malta or Naples, in both of which places it was very prevalent.

A case of scarlatina occurred in the Alacrity, at Gibraltar, in the person of the surgeon of the vessel. He states that the disease was very prevalent in the town, and that an officer who came on board to inspect the machinery had two or three young children at home with it. He also thinks that it may have been introduced into the ship with the washed clothes.

A case of this same exanthem, which occurred in the Hibernia, is stated to have been undoubted scarlatina anginosa. The source of infection could not be traced in this instance.

Diseases of the Brain and Nervous System.—Two hundred and thirty-eight cases are returned under this head; 159 of these being of a more or less trifling character. The loss to the service by invaliding was thirty, and by deaths four. Fifteen of those invalided were epileptic subjects.

An ordinary seaman of the Mars died of myelitis. He first presented himself a few days after having, as he stated, sprained his back while aloft furling sails. He was suffering from moderately sharp pain across the lumbar region, not decidedly increased on percussion. The pain, he stated, had been steadily increasing in severity since the accident. Three days after this there was retention of urine, and partial loss of power over the lower extremities. Sensation, however, continued perfect. Pain now became greatly increased on pressure over the last dorsal vertebra; the urine required always to be drawn off, and was highly ammoniacal. On the eighth day after presenting himself there was complete loss of sensation and motion from the pelvis downwards, and incontinence of urine took the place of retention. Emaciation to an alarming extent set in with great rapidity; bed-sores rapidly formed on all the parts on which pressure was exerted, and there was great loss of heat in the lower extremities. The appetite, however, was ravenous; the intellect quite clear, and his spirits cheerful. Paralysis of the lower bowel and of the bladder became complete, and he sunk exhausted and emaciated to the last degree, about five weeks after the accident which induced the disease. The post-mortem examination

examination of the body is to the following effect: "On opening the spinal canal posteriorly, through the lumbar and dorsal vertebræ, the membranes of the cord became ruptured, and about an ounce of thin creamy pus escaped. From the twelfth dorsal vertebra to the sacrum, the cord was diffluent."

A fatal case of apoplexy occurred in the Magicienne. The patient, a stoker, a man of very good character, and with none of the physical peculiarities of an apoplectic subject, was under treatment at the time for lumbago. He had no kidney disease. He had gone to bed in good spirits, but awoke in about three hours with a low scream or groan, and appeared convulsed for a few seconds; he then got out of bed, but remarked to those near him that he had lost the power over his limbs, as he could not stand; he then fell down insensible, and died in about an hour and a half. Dissection revealed a very considerable effusion of blood between the dura mater and anterior cerebrum, where rupture of a branch of the middle meningeal artery had taken place. The surgeon attributes the disease to the nature of the man's duties, the stokers having been much worked for some time previously, and exposed to a very high temperature in the stoke hold.

A case of paralysis of all the limbs, with complete loss of speech, following an epileptic seizure, occurred in the Shannon. The man retained full possession of his mental faculties. After a few days he recovered power and sensation in one arm, then in the other, and afterwards in the lower limbs, and suddenly, about a month afterwards, he regained his speech. The left leg and thigh, however, again became paralysed, and continued so. He was ultimately invalided, and on his arrival in England was sent to Haslar Hospital, where he died, of what is stated to have been apparently some malignant disease of the stomach, as he suffered great pain in that region, and vomited whatever he took. No post-mortem examination of the body was allowed.

There was a fatal case of delirium tremens in the Amphion. It occurred in the person of an officer of very dissipated habits. There were thirty-three cases of this disease altogether in the squadron; six of these occurred in officers; seventeen in seamen, and ten in marines.

Diseases of the Respiratory Organs.—There is a great reduction in the total ratio of diseases of the respiratory

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organs in the present year, as compared with the last. In inflammatory attacks the reduction amounts to more than one-half, the ratio in 1861 being 28·9, while in the present year it is only 13·7 per 1,000 of force. The reduction in the ratio of cases of phthisis is as 6·7 to 7·8; of influenza and catarrh as 149·9 to 167·7; and of cynanche as 48·5 to 52·8. Seventy-six persons were invalided for phthisis, being in the ratio of 7·6 per 1,000; in the preceding year the ratio was 11·8. The total loss by invaliding for these diseases was in the ratio of 9·1, whereas in 1861 it was 13·4; and the ratio of deaths is 2 1, being also a reduction on the previous year. The station had in fact returned to its normal health-state as regards these diseases.

Influenza in an exceedingly mild form prevailed epidemically in the Algiers, the Marlborough, the Mars, the Neptune, and the Queen. In all these ships it was most prevalent in the first quarter of the year, when the weather was for the most part unsettled and cold; rain, fogs, and high winds alternating with bright skies, and a comparatively elevated temperature. In the Algiers the attacks were of a very mild nature, although in some there was a good deal of subsequent debility, with protracted convalescence. In the Marlborough the epidemic prevailed during the end of February and beginning of March. It made its appearance subsequent to a continuance of exceedingly unpleasant moist weather, and a succession of thick fogs encountered on the passage from Malta to Syracuse. The same fogs appear to have existed, although not for such a length of time, in Malta, and influenza (if this term can with justice be applied to symptoms which were of such short duration, but which were chiefly bronchitic, and accompanied with a good deal of febrile action) was also epidemic on that island. The majority of the cases occurring in the Mars were added to the sick list in the months of January and February, during bleak, unsettled weather, while the ship was lying in the Piræus at Athens: they were of a trivial character, seldom requiring medical treatment. The remainder of the cases in this ship were contracted on the coast of Syria, and were occasioned, the surgeon says, entirely by the men sitting in currents of wind to cool themselves when overheated. With respect to the cases in the Neptune, it is remarked by the medical officer—"About the middle of February the crew had general leave for four days at Corfu, the weather at the time being extremely cold and rainy. The result was the occurrence

occurrence of a catarrhal epidemic on the ship's going to sea, soon after the leave was over. Some of the cases were attended with fever, and one had a slight attack of pneumonia, but four or five days' rest sufficed for the cure of the great majority." The majority of the cases in the Queen occurred during the first two quarters of the year, but no special reference is made to them in the returns from that ship.

Diseases of the Heart and Blood Vessels.—As compared with the preceding year, there is a slight decrease in the ratios under this head, both as regards the proportion of cases, of invaliding, and of deaths. A fatal case of disease of the heart is returned by the Amphion. The sufferer, a young officer of a weak constitution, and with a very feeble circulation, presented himself, complaining of difficulty of breathing, cough, and inability to obtain relief excepting in the sitting posture; he was sent on the following day to the Military Hospital at Gibraltar, where he died about an hour after admission. On post-mortem examination of the body, the "pericardium contained about ten ounces of serum; lining membrane healthy; heart enlarged, about the size of that of an adult; warty excrescences on the free margins of the aortic valves, especially of the centre one, at and around the base of which they were also present. From a point commencing a few lines breadth behind the central valve, a tortuous and very narrow canal passed from the right to the left ventricle." A case of sudden death from disease of the heart also occurred in the Queen. The man seems to have been subject occasionally to attacks of angina pectoris, which were from time to time relieved by stimulants. On the day of his death he complained of severe pain in his chest; he died suddenly in the evening, and post-mortem examination revealed hypertrophy of the left side of the heart with thickening, and induration of the aortic valves.

There was a death in the Hibernia, occasioned by the rupture of an aneurism of the thoracic aorta. The man, a marine, had long complained of pseudo-rheumatic pains in the chest and back; he was suffering from secondary syphilis, and these pains were considered to be probably of syphilitic origin; emaciation and debility had been progressing for some time before the fatal event; he was found dead in his bed. "On opening the thorax the left pleural cavity was found to be full of coagula and dark coloured serum, the left lung was collapsed, and it, as well as the heart, pushed over to the

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right side. When the blood was removed a large aneurismal tumour was detected on the descending portion of the thoracic aorta; this tumour extended from the fourth to the eighth dorsal vertebra, and was pyriform in shape; its apex pointed into the left pleural cavity, and was about two inches to the left of the mesial line; near the apex of the tumour a ragged opening existed about an inch in length; this aneurismal sac communicated with the aorta and was filled with coagulum. The tumour could not be dissected off the periosteal membrane of the vertebræ, and that membrane appeared to form its posterior wall."

Diseases of the Alimentary Canal.—There is a very considerable reduction in the ratio of these diseases as compared with the preceding year, although the ratios of invaliding and death, in consequence of them, are almost precisely the same. In 1861 the daily loss of service from diarrhœa alone was equivalent to about thirty men, whereas in the present year it only amounts to twelve; and so with dysentery, while last year the loss was equal to upwards of six men daily, in the present year it is only two.

Diarrhœa was very prevalent in the Queen, particularly during the Michaelmas quarter, when she was stationed at Corfu and in the Piræus. This disease also occurred to a considerable extent in the Neptune during the hot months; and while stationed on the coast of Syria, it assumed a good deal of the dysenteric character. In the Exmouth, where the disease was also very common, the surgeon* says, "Towards the close of June, before the ship left Naples for Palermo, cases of diarrhœa were frequent amongst the ship's company—diarrhœa of irritation for the most part, amenable to the ordinary remedies. During the month of July also they continued numerous, generally of the same character, the disease, however, in some cases, appearing to be less easily checked, yielding only to strong astringents; with the increase of the hot weather it assumed a graver form, characterised by severe hypogastric pains, nausea, tenesmus, in some instances by muco-sanguinolent evacuations, and in several graduating into well-marked dysentery." . . . . "On considering carefully the causation of these affections, I could not satisfy myself as to the existence of any other than the ordinary

* Dr. H. Trevan.

ordinary causes predisposing and determining to which this class of ailment is usually attributed—increased temperature, namely, casual exposure to cold, while the body of the patient is parting with its heat rapidly, excessive consumption of fruit, and the like."

Two cases of dysentery proved fatal, one in a boy belonging to the Exmouth, who died in Malta Hospital, and the other in a seaman of the Marlborough, who, having been invalided, died on the homeward passage. The boy seems to have contracted the disease while on board the Hibernia in Malta Harbour. The surgeon states that the case was a very acute and alarming one from the commencement. He only lived a few days in hospital, the dysenteric symptoms continuing to be most severe. On post-mortem examination the whole of the large intestine was found to be greatly thickened, and its entire mucous surface in a state of ulceration. The seaman of the Marlborough was a comparatively old man. The disease was from the first of a subacute or chronic character. He was sent to hospital, and from thence invalided. He had been ill for three or four months before the disease carried him off.

There was a fatal case of cancer of the pylorus in the James Watt. Two deaths are returned for disease of the liver, one from the Doris, and the other from the Hibernia: both were cases of hepatitis, terminating in abscess, and in both the disease progressed most insidiously. The case from the Hibernia was a particularly obscure one. The patient was a delicate, rather scrofulous-looking young marine, who had never complained of any affection connected with the liver. He had never served abroad before going to the Mediterranean, and although his general health was not very good, there was nothing very actively the matter with him. He presented himself complaining of symptoms of ordinary colic, which becoming aggravated took on all the characters of peritoneal inflammation. He was sent into hospital, where he lingered for some time, and at the post-mortem examination of the body an enormous abscess of the liver was discovered, which had burst into the peritoneal cavity, and caused the urgent symptoms for which he was sent into hospital.

Diseases of the Genito-Urinary Organs.—There is only a very trifling decrease in the ratio of venereal complaints as compared with the preceding year, but there is a very consi-

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derable reduction in the rates of invaliding occasioned by them. The ships in which syphilis prevailed to the greatest extent were the Exmouth, the Neptune, the London, and the James Watt. In the Exmouth there were eighty-two cases of syphilis, and sixteen of gonorrhœa. A considerable number of these were cases of secondary syphilis. Almost all the primary disease was contracted at Naples, and it is to the same locality that all the other vessels named above are indebted for the majority of the cases of venereal disease which occurred amongst their ships' companies. In the James Watt there were sixty-four cases of syphilis, and none of gonorrhœa. In the London, 102 of syphilis, and three of gonorrhœa; and in the Neptune, 110 of syphilis, and twenty-two of gonorrhœa. The daily loss of service from syphilis in its various forms was equal to fifty-six men, a loss greater than from any of the other diseases on the nosological tables, with the exception of boils, ulcers and wounds of various kinds. It is a matter for congratulation that in our own dependencies in the Mediterranean these diseases were comparatively unknown. At Malta and Corfu the system of surveillance instituted by the respective governments was rigidly carried out, and the results were in marked contrast to what obtained at Naples and other places in the Mediterranean where such measures were not adopted. The surgeon of the Neptune says in his journal, "Owing to a strict medical surveillance over the brothels at Malta and Corfu, venereal affections are scarcely ever met with at either of these places; but though a similar system is nominally in existence at Naples, our men suffered severely there both from syphilis and gonorrhœa, and, with the exception of the regular sloughing form, every variety of chancre was met with."

The advantages derived from the system of surveillance cannot, however, be better illustrated than by drawing attention to the effects upon ships stationed almost entirely at these ports; and for this purpose, it appears only necessary to observe that the flag ship of the station, the Marlborough, a three-decker, with a complement averaging 1,145 men, only returns twenty-three cases of syphilis, and four of gonorrhœa, for the whole period of twelve months. During this time she was almost exclusively stationed in Malta or at Corfu. The surgeon of the Marlborough, in remarking on the great advantages derived from the enactment of the ordinance for the preventing of these diseases at Malta, says, "With

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"With regard to individual ships, the effect was equally striking. Taking Her Majesty's ship Marlborough as a fair example, I think I cannot do better than transcribe here very nearly what I wrote in my remarks in the Nosological Return for the quarter ending March 1862. Nothing can be more gratifying than the almost entire absence of syphilis on this part of the station. Of the four cases returned as added from this disease during the quarter, two only have any reference to Malta, and of these one came on board after having been living on shore on a month's leave, during which time he may be said to have enjoyed every facility for contracting the disease if it were possible to do so. The other contracted a small sore evidently on the island. Of the other cases, one occurred in a man who had contracted the disease at Naples, where he had been left behind in hospital; and the fourth was a case of secondary syphilis, for which the patient was invalided. In order, however, to appreciate the inestimable value of the surveillance which is established over prostitution here, it must be remembered that, out of a ship's company averaging upwards of 1,100 (1,145) men, with as much leave as they care to have, and never going on shore without money in their pockets, syphilis can only be said to have been contracted in two instances, and from all the cases during the three months of the quarter, there were only thirty-nine days' sickness. Contrast this with matters as they stood with us when we left England. In the quarter ending the 30th September 1861, no fewer than seventy-five cases were placed on the list, eight of which were sent to hospital, and these cases alone gave us 1,126 days' sickness. In the quarter preceding, although a large proportion of the ship's company were on leave, and those who were on board no doubt, in many cases, concealed their diseases rather than risk being confined to the sick list, the number of cases was twenty-nine, fifteen of which were sent to hospital. These twenty-nine cases gave 156 days' sickness on board ship; but more than one-half of them remained in hospital for considerable periods of time. Nine cases of the disease were added during the quarter ending the 31st of December. Two of these were cases of secondary syphilis, and all the others were contracted at Naples, where some amount of 'privilege leave' was given." Nothing can be more satisfactory than this report, and no evidence can be more telling in favour of the system of surveillance adopted at Malta. To show that the immunity from those diseases

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was not owing to any confinement of the men on board, the following table of the amount of general and privilege leave granted to the ship's company in the different quarters of the year is given by the surgeon of the ship:—

TABLE of General and Privilege Leave enjoyed by the Ship's Company of the Marlborough during the year 1862.

	1 January to 31 March.	1 April to 30 June.	1 July to 30 Sept.	1 October to 31 Dec.	TOTALS.
General Leave - -	2,044	2,624	2,426	2,687	9,781
Privilege Leave - -	4,616	4,484	4,532	5,131	18,763
TOTALS - - -	6,660	7,108	6,958	7,818	28,544

It thus appears that, supposing it had been possible to grant leave on every day of the year, nearly eighty men would have enjoyed that privilege daily, and yet the amount of venereal disease appearing in the returns is only twenty-three cases of syphilis, and four of gonorrhœa. Of these a very large proportion of the syphilitic cases were varieties of the secondary form of the disease, and the few cases of primary syphilis, as well as the cases of gonorrhœa, were certainly less than might have been anticipated from the unavoidable oversights and escape of certain infected women, which are liable to occur under even the most rigid system of surveillance. The legal enactment authorizing this surveillance in the island of Malta was only passed in May 1861. During the whole period of the occupation of the island probably, up to the beginning of the year 1860, there had been a system of surveillance exercised tolerably rigorously, but which was not founded on any legal enactment whatever. It was a system established by custom; but whether the custom was derived from the knights or from the French, it is not easy to ascertain. However this may be, it was in full operation, and attended with the most admirable results until the beginning of 1860, when the discovery having been made by the prostitutes themselves, that there was no law compelling them to submit themselves to examination, they at once took advantage of the fact, refused to be examined, and all surveillance was from

from that time suspended. Previous to this, Malta had enjoyed an almost entire immunity from venereal disease, and the vast bulk of the cases sent into the naval hospital there, were cases brought out from England, the disease having been contracted at the Home Ports. The effects of this suspension of surveillance were very speedily seen, and in May 1860, the Deputy Inspector General of the Royal Naval Hospital at Malta* called the attention of the Rear Admiral Superintendent of the dockyard to the "great increase in the amount of venereal disease received into the hospital, and affecting the seamen and marines of the fleet, nearly all of which has been contracted on this island." This letter was submitted to the Commander in Chief, who at once drew the attention of the local authorities to the subject, and begged that some steps might be taken to stay the disease. After repeated representations the following Ordinance was passed by the local government:

Ordinance No. IV. of 1861.

An Ordinance enacted by the Governor of Malta, with the Advice and Consent of the Council of the Government thereof.

For the Prevention of the Spreading of Venereal Diseases.

Whereas it is expedient to prevent the spreading of venereal diseases, it is hereby enacted and ordained by His Excellency the Governor, with the advice and consent of the Council of the Government, as follows: Preamble.

Article 1. Any person, being notoriously a prostitute, shall be liable to be visited three times in each month by one of the police physicians, for the purpose of its being ascertained whether such person is affected with venereal disease. Prostitutes liable to be visited by the Police.

The visit shall be made in a place to be for that purpose appointed by the superintendent of police.

2. The person referred to in the preceding article shall be summoned to appear for the purpose of being visited as aforesaid, by means of an order in writing, signed by the superintendent of police, and stating the time and place in which the visit shall be made. How to be summoned.

If such person shall refuse to appear at the time and place aforesaid, or if on her appearance she shall refuse to be visited, such person shall be punished with imprisonment for a term not exceeding three months. Punishment for refusal.

3. The

* Dr. Alex. Armstrong.

When punishment remitted.

3. The punishment provided in the preceding article shall be remitted as soon as the person sentenced shall consent to be visited.

Proceeding if a prostitute is infected with disease.

4. If the aforesaid physician shall declare the person visited to be affected with venereal disease, such person shall be kept in custody, and shall on the same day be brought before the court of judicial police, which court, on the aforesaid declaration being confirmed by the physician on oath, shall order such person to be taken to a public hospital, or to any other place which may for that purpose be appointed by the Head of the Government, to be therein kept under medical treatment until cured.

Other physicians may be appointed.

5. It shall be lawful for the court, at the request of the said person, before giving the order referred to in the preceding article, to appoint two or more physicians for the purpose of ascertaining the existence of the disease.

Costs.

If such other physicians shall confirm the opinion given by the police physicians, who shall have made the visit contemplated in the preceding articles, the aforesaid person shall be sentenced to pay a sum equal to the amount of the fee to which such other physicians are by law entitled.

When proceedings may be omitted.

6. The proceedings indicated in Article 4 shall not take place in cases where the aforesaid person shall, upon the declaration of the police physician that she is affected with venereal disease, consent to go to or remain in the hospital, or other place mentioned in the said article, for the purposes therein indicated.

This was the Ordinance passed on the 10th of May by the Council of Government of Malta, and promulgated on the 14th of June following, and which has ever since been in active operation. The necessity for the measure was evidenced by the fact that in the general visitation which followed on the passing of the law, it was found necessary, out of the whole number of prostitutes on the island, amounting to 145 in 1862, to send fifty-six into hospital. The beneficial results which accrued to the squadron, as a consequence of the surveillance which was instituted, is thus spoken of in a letter from the Deputy Inspector General, for the information of the Commander in Chief: "I have now the great satisfaction of stating that, owing to the admirable manner in which the law has been enforced by the local government, in regard to this question, from the period of its promulgation, now nearly four months ago, there has not been a single case of venereal disease received into this hospital that was contracted on this island, a result that has far exceeded my best expectations. I beg further to state that, previous to the establishment of this law, the number of venereal cases contracted

contracted at Malta, and under treatment in this hospital, was, at the lowest computation, forty men per day, to say nothing of the numbers which were rendered unfit for duty on board the respective ships composing this great fleet."

At Corfu very much the same system was adopted, the surveillance being carried on entirely through the police. The Lord High Commissioner was the sole authority who could interfere with or make police regulations or arrangements. In this island, as in Malta, venereal disease was almost unknown. An occasional outbreak of it would occur after the arrival of a regiment from England or from Gibraltar, where surveillance, if carried on at all, seems not to have been very rigorous.

Rheumatism.—Rheumatism was still very prevalent, although the ratio is not so high as in the preceding year, the difference being as 104·8 per 1,000, to 112·8. The loss by invaliding is also slightly less than it was in 1861.

In last year's Report it was observed that rheumatic affections very frequently followed in the train of the various fevers common in the Mediterranean, whether periodic or continued. The returns for the present year confirm that observation in the strongest manner. The disease appeared in a large number of cases either as a direct sequela of fever, or it occurred in persons who had at some recent period suffered from febrile disease. It was a very prominent feature, also, in that peculiar form of cachexia which is liable to be begotten in the Mediterranean, and not unfrequently, in one form or another, it was the most decided symptom which that condition exhibited. A fatal case of rheumatism is returned from the James Watt. The death, however, is rather referrible to paraplegia, with which the person was seized while on the sick list with rheumatism. Extensive bed-sores speedily formed on all points where pressure was exerted, and after much suffering he sank exhausted.

Diseases of Skin and Cellular Tissue.—A death from exhaustion, consequent upon the formation of large abscesses after fever, occurred in a young officer of the Neptune, who was invalided from the Royal Naval Hospital at Malta, and died on board the James Watt on the homeward passage.

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Wounds, &c.—Thirteen men were killed by falling from aloft while on duty; one man's death was occasioned by a blow from a block weighing seventeen pounds, which came down on his head with great force and fractured his skull; one man was killed by falling from horseback when drunk; and a man died of inflammation of the spinal chord following a sprain. A man was killed by falling from the main to the lower deck; and a man died from the effects of a wound inflicted on him by one of his own shipmates.

Two men were drowned by the capsizing of a boat at Gibraltar; one man fell out of a boat in the Piræus and was drowned; one was drowned in the surf at Beyrout while watering; one fell head foremost into a well and was drowned before he could be extricated; and a boy was drowned by being accidentally pushed off a lighter. A stoker was so severely scalded by an escape of steam that almost all the skin of his body was removed, even the thick parts of the soles and palms: he died in hospital, a few hours after the accident. A man was suffocated by the impaction of a piece of meat in the windpipe during vomiting, and while in a state of intoxication.

A marine committed suicide by discharging a loaded musket into his axilla. Death was almost instantaneous. The total mortality from all causes was ninety-seven; seventy being from disease, and twenty-seven from wounds and injuries; the former being in the ratio of 7·, and the latter of 2·7 per 1,000 of mean force.

Invalided.—Three hundred and fifty persons altogether were invalided during the year. Of these, twelve were for the various sequelæ of fever; thirty for diseases of the brain and nervous system, fifteen of these being epileptic subjects. Ninety-one persons were invalided for diseases of the organs of respiration, of whom seventy-six laboured under symptoms of phthisis; forty for diseases of the organs of circulation; seven for diseases connected with the alimentary canal; and four for diseases of the liver. Fourteen persons were invalided for diseases of the genito-urinary organs, eleven of whom suffered from various forms of syphilis. Forty for rheumatism; five for diseases of the bones and joints; seventeen for diseases of the special senses; forty-two for diseases of the skin and sub-cutaneous cellular tissue, of whom twenty-four were for ulcer,

ulcer; eight for dyspepsia; two for dropsy; twenty-two for wounds and injuries of various kinds; and sixteen for hernia. The whole number invalided was in the ratio of 35·1 per 1,000 of mean force; a considerable reduction as compared with the preceding year, when it was 45·4.

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TABLE, No. 1.

SHOWING the Number of CASES of all DISEASES and INJURIES, and the Number INVALIDED and DEAD, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	737	74·1	12	1·2	21	2·1
Intermittent Fever	227	22·8	—	—	—	—
Small-pox	34	3·4	-	-	4	·4
Scarlatina	2	·2	—	—	—	—
Inflammation of the Brain	1	·1	3	·3	1	·1
Apoplexy	1	·1	1	·1	1	·1
Epilepsy	29	2·9	15	1·5	—	—
Paralysis	6	·6	3	·3	1	·1
Insanity	9	·9	5	·5	—	—
Delirium Tremens	33	3·3	-	-	1	·1
Headache, &c.	159	15·9	3	·3	—	—
Inflammation of the Lungs and Pleura	137	13·7	12	1·2	5	·5
Phthisis and Hæmoptysis	67	6·7	76	7·6	16	1·6
Influenza and Catarrh	1,491	149·9	2	·2	—	—
Cynanche	483	48·5	1	·1	1	·1
Asthma	11	1·1	—	—	—	—
Functional and Organic Disease of the Heart	76	7·6	33	3·3	2	·2
Hæmorrhoids	41	4·1	2	·2	—	—
Varix	9	·9	3	·3	—	—
Aneurism of the Aorta, &c.	-	-	2	·2	1	·1
Inflammation of the Stomach and Bowels	12	1·2	1	·1	4	·4
Dysentery	25	2·5	5	·5	2	·2
Diarrhœa	829	83·3	1	·1	—	—
Constipation and Colic	183	18·4	—	—	—	—
Inflammation of the Liver	19	1·9	4	·4	2	·2
Jaundice	60	6·	—	—	—	—
Splenitis	1	·1	—	—	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	8	·8	—	—	—	—
Syphilis	602	60·5	11	1·1	—	—
Gonorrhœa	178	17·8	—	—	—	—
Orchitis	181	18·1	—	—	—	—
Stricture	18	1·8	2	·2	—	—
Incontinence of Urine, &c.	7	·7	1	·1	—	—
Rheumatism	1,043	104·8	40	4·	1	·1
Disease of the Bones and Joints	48	4·8	5	·5	—	—
Ophthalmia	126	12·6	5	·5	—	—
Amaurosis and Cataract	8	·8	8	·8	—	—
Otitis and Deafness	34	3·4	4	·4	—	—
Erysipelas	39	3·9	-	-	1	·1
Scrofula	11	1·1	4	·4	—	—
Bubo (*Symp.*)	145	14·5	3	·3	—	—
Phlegmon and Abscess	3,146	316·1	6	·6	1	·1
Ulcer	1,381	138·7	24	2·4	—	—
Psora	168	16·8	—	—	—	—
Eruptions, &c.	146	14·6	5	·5	—	—
Dyspepsia and Debility	435	43·7	8	·8	1	·1
Scurvy	4	·4	—	—	—	—
Dropsy	13	1·3	2	·2	2	·2
Worms	8	·8	—	—	—	—
Cancer	-	-	-	-	2	·2
Wounds and Injuries	2,849	286·3	22	2·2	18	1·8
Burns and Scalds	116	11·6	-	-	1	·1
Hernia	25	2·5	16	1·6	—	—
Drowned	-	-	-	-	6	·6
Poison	1	·1	—	—	—	—
Asphyxia	1	·1	-	-	1	·1
Suicide	-	-	-	-	1	·1
TOTAL	15,423	1550·	350	35·1	97	9·7

TABLE, No. 2.

SHOWING the Number of DAYS' SICKNESS from each DISEASE, and from INJURIES, the average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	9,463	2,974	12,437	34·	3·4
Intermittent Fever	1,293	- -	1,293	3·5	·3
Small-pox	732	48	780	2·1	·2
Scarlatina	5	107	112	·3	—
Inflammation of the Brain	59	- -	59	·1	—
Apoplexy	- -	31	31	—	—
Epilepsy	337	15	352	·9	—
Paralysis	132	4	136	·3	—
Insanity	129	78	207	·5	—
Delirium Tremens	229	113	342	·9	—
Headache, &c.	928	173	1,101	3·	·3
Inflammation of the Lungs and Pleura	2,899	689	3,588	9·8	·9
Phthisis and Hæmoptysis	1,554	923	2,477	6·7	·6
Influenza and Catarrh	7,192	106	7,298	20·	2·
Cynanche	3,410	92	3,502	9·5	·9
Asthma	263	22	285	·7	—
Functional and Organic Disease of the Heart	1,609	1,168	2,777	7·5	·7
Hæmorrhoids	424	265	689	1·8	·1
Varix	75	8	83	·1	—
Inflammation of the Stomach and Bowels	161	229	390	1·	·1
Dysentery	478	313	791	2·1	·2
Diarrhœa	4,245	324	4,569	12·4	1·2
Constipation and Colic	794	- -	794	2·1	·2
Inflammation of the Liver	271	139	410	1·1	·1
Jaundice	659	26	685	1·3	·1
Splenitis	29	- -	29	—	—

TABLE, No. 2.—Showing the Number of Days' Sickness from each Disease, &c.—*cont^d*.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	131	10	141	·4	—
Syphilis	13,837	6,813	20,650	56·5	5·6
Gonorrhœa	2,917	204	3,121	8·5	·8
Orchitis	3,145	335	3,480	9·5	·9
Stricture	335	81	416	1·1	·1
Incontinence of Urine, &c.	199	285	484	1·3	·1
Rheumatism	14,021	4,817	18,838	51·5	5·1
Disease of the Bones and Joints	751	486	1,237	3·3	·3
Ophthalmia	1,513	327	1,840	5·	·5
Amaurosis and Cataract	154	3	157	·4	—
Otitis and Deafness	187	9	196	·5	—
Erysipelas	594	197	791	2·1	·2
Scrofula	544	42	586	1·6	·1
Bubo (*Symp.*)	3,374	469	3,843	10·5	1·
Phlegmon and Abscess	28,556	1,030	29,586	81·	8·1
Ulcer	23,168	4,752	27,920	76·5	7·6
Psora	1,391	169	1,560	4·2	·4
Eruptions, &c.	1,943	543	2,486	6·7	·6
Dyspepsia and Debility	2,741	798	3,539	9·6	·9
Scurvy	92	9	101	·2	—
Dropsy	102	279	381	1·	·1
Worms	88	- -	88	·1	—
Wounds and Injuries	30,710	2,722	33,432	91·5	9·1
Burns and Scalds	1,740	- -	1,740	4·7	·4
Hernia	404	57	461	1·2	·1
Poison	6	17	23	—	—
TOTAL	170,013	32,301	202,314	554·1	55·6

TABLE, No. 3.

SHOWING the Number INVALIDED from each Ship

CAUSE of INVALIDING.	Alacrity.	Algiers.	Amphion.	Cockatrice.	Doris.	Exmouth.	Firebrand.	Firefly.	Foxhound.	Gannet.	Greyhound.	Hibernia.	Icarus.	Intrepid.
Continued and Remittent Fever	–	–	1	–	–	4	–	–	–	–	–	–	1	1
Paralysis	–	–	–	–	–	–	–	–	–	–	–	–	1	–
Coup de Soleil	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Disease of the Brain	–	–	–	–	–	–	1	–	–	–	–	–	–	–
Epilepsy	–	1	–	–	–	4	–	–	–	1	1	–	–	–
Insanity	–	–	–	–	1	–	–	–	–	–	–	–	–	–
Neuralgia, &c.	–	–	–	–	–	1	–	–	–	–	–	–	1	–
Inflammation of the Lungs and Pleura	–	2	–	–	–	2	–	–	1	–	1	–	–	–
Phthisis and Hæmoptysis	1	8	1	2	7	10	1	–	–	1	–	–	3	1
Aphonia	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Asthma	–	–	–	–	1	–	–	–	–	–	–	–	–	–
Cynanche	–	–	–	–	–	–	–	–	–	–	–	1	–	–
Aneurism	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Disease of the Heart	1	5	–	–	–	6	–	–	–	–	1	–	–	–
Prolapsus Ani	–	–	–	–	–	–	–	–	–	–	1	–	–	–
Varix	–	–	–	–	1	–	–	–	–	–	–	–	–	–
Hæmorrhoids	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Bowels	–	–	–	–	–	1	–	–	–	–	–	–	–	–
Dysentery	–	1	–	–	–	1	–	–	–	–	–	–	–	–
Diarrhœa	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Disease of the Liver	–	–	1	–	–	–	1	–	–	–	–	–	–	–
Syphilis	–	–	–	–	–	5	–	–	–	–	–	–	–	–
Stricture	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Incontinence of Urine, &c.	–	–	–	–	–	–	1	–	–	–	–	–	–	–
Rheumatism	–	1	2	–	–	11	4	–	–	2	2	–	1	1
Disease of the Hip-joint	–	–	1	–	–	–	–	–	–	–	–	–	–	–
Disease of the Bones and Joints	–	–	–	–	–	1	–	–	–	–	–	–	–	–
Inflammation of the Eyes	–	–	–	–	–	–	1	–	–	–	–	–	–	–
Amaurosis and Cataract	–	–	–	–	–	1	–	–	–	–	–	–	–	–
Otitis and Deafness	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Phlegmon and Abscess	–	–	–	–	1	1	–	1	–	–	–	–	–	–
Ulcer	1	–	2	–	–	3	–	–	–	–	1	–	–	2
Scrofula	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Eruptions, &c.	1	–	–	–	–	–	–	–	–	1	–	–	–	–
Bubo (*Symp.*)	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dyspepsia and Debility	–	–	–	–	–	1	1	–	–	–	1	–	–	–
Dropsy	–	–	–	–	–	–	1	–	–	–	–	–	–	–
Wounds and Injuries	–	2	–	–	1	2	–	–	–	–	–	1	–	–
Burns and Scalds	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hernia	–	3	–	–	2	–	1	–	–	–	–	–	–	–
Deformity	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TOTAL	4	23	8	2	14	54	12	1	1	5	8	2	7	6

- - - - - - - TABLE, No. 3.

- - - - - - - employed on the MEDITERRANEAN Station.

James Watt.	London.	Magicienne.	Malacca.	Marlborough.	Mars.	Neptune.	Pelican.	Procris.	Queen.	Scylla.	Shannon.	Surprise.	Trident.	Victor Emanuel.	Wanderer.	TOTAL.
–	1	–	–	–	–	1	–	–	2	–	–	–	–	–	1	12
–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	3
–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1
1	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	3
1	1	–	–	4	–	1	–	–	1	–	–	–	–	–	–	15
–	1	–	–	–	–	1	–	1	–	–	–	1	–	–	–	5
–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	3
–	2	1	1	–	–	1	–	–	–	–	1	–	–	–	–	12
2	5	1	1	7	2	6	2	–	9	–	1	2	2	–	1	76
–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	1	–	–	–	1	–	–	–	–	–	–	–	–	–	2
2	1	1	–	2	–	4	2	–	7	–	–	–	–	1	–	33
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	1	–	–	–	–	–	–	–	–	1	–	–	–	–	–	3
–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	1	–	–	–	–	–	–	1	–	1	–	–	–	–	5
–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	4
–	–	–	–	2	–	1	1	–	2	–	–	–	–	–	–	11
–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	2	1	1	1	1	3	1	–	4	–	2	–	–	–	–	40
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	1	–	–	2	–	–	–	–	–	–	4
–	1	–	–	–	2	1	–	–	–	–	–	–	–	–	–	5
1	–	1	1	–	1	1	–	–	2	–	–	–	–	–	–	8
–	1	–	–	1	–	–	–	–	–	1	–	–	–	–	–	4
–	–	–	–	–	–	2	–	–	1	–	–	–	–	–	–	6
1	4	–	–	1	1	1	–	–	7	–	–	–	–	–	–	24
–	–	–	–	1	–	–	1	–	–	–	–	–	–	1	1	4
–	–	–	–	2	–	1	–	–	–	–	–	–	–	–	–	5
–	1	1	–	–	–	–	1	–	–	–	–	–	–	–	–	3
–	1	–	1	–	1	–	–	–	–	1	–	–	–	–	–	7
–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	2
–	3	2	2	–	2	1	1	–	3	–	–	–	–	1	1	22
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	4	1	1	2	–	1	–	–	–	–	–	–	1	–	–	16
–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1
8	30	11	9	27	10	29	9	1	45	3	8	3	3	3	4	350

Table, No. 4.

Showing the Number of Deaths in each Ship employed on the Mediterranean Station.

CAUSE of DEATH.	Algiers.	Amphion.	Doris.	Exmouth.	Firebrand.	Firefly.	Foxhound.	Gannet.	Hibernia.	James Watt.	London.	Magicienne.	Malacca.	Marlborough.	Mars.	Medina.	Neptune.	Pelican.	Queen.	Shannon.	Trident.	Victor Emanuel.	Total.
Continued and Remittent Fever	6	1	1	2	1	1	–	1	1	–	1	–	1	–	–	–	–	–	3	–	2	–	21
Small-pox	–	–	–	2	–	–	–	–	–	1	–	–	–	–	1	–	–	–	–	–	–	–	4
Disease of the Brain	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Apoplexy	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1
Delirium Tremens	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Paralysis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1
Pneumonia	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1	–	1	–	–	1	4
Bronchitis	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Phthisis and Hæmoptysis	6	–	1	–	2	–	2	–	–	–	1	–	1	–	1	1	–	–	1	–	–	–	16
Diphtheria	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1
Disease of the Heart	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	2
Aneurism of the Aorta	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Inflammation of the Stomach and Bowels	–	–	–	–	1	–	–	–	1	–	1	–	–	–	1	–	–	–	–	–	–	–	4
Dysentery	–	–	–	1	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	2
Cancer of the Pylorus	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1
Disease of the Liver	–	–	1	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	2
Rheumatism	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1
Abscess	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1
Erysipelas	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Cancer	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1
Dyspepsia and Debility	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	1
Dropsy	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
Suicide	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	1
Drowned	–	–	–	–	1	1	–	1	–	–	2	–	–	–	1	–	–	–	–	–	–	–	6
Wounds and Injuries	–	2	–	3	1	–	–	–	–	1	5	–	–	3	2	–	–	–	1	–	–	–	18
Burns and Scalds	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Asphyxia	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Total	14	6	4	11	6	2	2	2	4	4	12	1	3	5	6	1	2	1	7	1	2	1	97

TABLE, No. 5.

SHOWING the Names of the SHIPS; the Average Complement and the Mean Force; the Total Number of Cases; the Total Number of Days' Sickness on Board; and the Average Number of Men Daily Sick in each Ship.

C. Commissioned. P. O. Paid off. C. S. Station changed. D. Returns defective.

NAME of SHIP.	Number of Guns, Horse Power, &c.	Period.	Average Complement.	Mean Force of each Ship.	Number of Cases.	Number of Days' Sickness on Board.	Average Number of Men Daily Sick.	Ratio per 1,000 of Mean Force of each Ship.	Number discharged to Hospital.
Alacrity - -	4 Sc. 200	year	95	95	218	1,729	4·7	49·5	12
Algiers - P. O.	89 Sc. 600	year	880	880	845	10,315	28·2	32·	20
Amphion - -	36 Sc. 300	year	365	365	483	5,121	14·	38·3	38
Banshee - P. O.	2 P. W. 350	5 mo.	70	30	40	533	1·4	20·	–
Cockatrice - -	2 Sc. 60	year	40	40	120	768	2·1	52·5	2
Doris - P. O.	30 Sc. 800	year	485	485	757	9,834	26·9	55·4	22
Exmouth P. O.	76 Sc. 400	9 mo.	800	600	1,361	12,792	35·	58·3	85
Firebrand - -	6 P. W. 410	year	190	190	467	5,219	14·2	74·7	23
Firefly - - -	5 P. W. 220	year	85	85	101	1,300	3·5	41·1	6
Foxhound - -	4 Sc. 200	year	95	95	111	1,055	2·8	29·5	–
Gannet - - -	11 Sc. 150	year	130	130	228	2,559	7·	53·8	8
Hibernia - -	104 - -	year	215	215	251	2,303	6·3	29·3	27
Icarus - - -	11 Sc. 150	year	140	140	404	3,176	8·6	61·4	26
Intrepid - P. O.	6 Sc. 350	6 mo.	110	55	71	865	2·3	51·8	5
James Watt P. O.	79 Sc. 600	6 mo.	880	440	462	6,310	17·2	39·1	33
London - - -	78 Sc. 500	year	850	850	942	15,046	41·2	48·4	76
Magicienne - C.	16 P. W. 400	6 mo.	245	120	218	1,841	5·	41·9	17
Malacca - - -	17 Sc. 200	year	220	220	212	2,023	5·5	24·9	4
Marlborough - -	121 Sc. 800	year	1,145	1,145	1,225	10,166	27·8	24·3	37
Mars - - -	68 Sc. 400	year	770	770	1,080	16,975	46·5	60·3	6
Medina - - -	4 P. W. 312	year	90	90	132	1,011	2·7	30·	7
Neptune - P. O.	78 Sc. 500	year	865	865	1,611	16,539	45·3	52·3	69
Pelican - - -	17 Sc. 200	year	175	175	270	2,728	7·4	42·2	14
Procris - - D.	2 Sc. 60	10 mo.	30	25	13	83	·2	8·	3
Queen - - -	74 Sc. 500	year	810	810	2,170	23,072	63·2	78·	57
Scylla - P. O.	21 Sc. 400	year	270	270	365	3,476	9·4	34·8	6
Shannon C. S.	35 Sc. 600	3 mo.	520	130	255	3,833	10·5	80·6	5
Surprise - -	4 Sc. 200	year	95	95	76	819	2·2	23·1	4
Trident - - -	3 P. W. 350	year	105	105	201	1,710	4·6	43·8	9
Victor Emanuel P. O.	79 Sc. 600	4 mo.	840	280	358	5,184	14·2	50·7	21
Wanderer - -	4 Sc. 200	year	90	90	194	1,943	5·3	58·9	8
Weser - - -	6 P. W. 160	year	65	65	182	1,424	3·8	60·	2

TABLE, No. 6. - - - - - - - -

SHOWING the Number of CASES of all DISEASES and INJURIES - -

DISEASE OR INJURY.	Alacrity.	Algiers.	Amphion.	Banshee.	Cockatrice.	Doris.	Exmouth.	Firebrand.	Firefly.	Foxhound.	Gannet.	Hibernia.	Icarus.	Intrepid.
Continued and Remittent Fever	11	72	18	1	8	120	14	71	7	2	13	7	85	1
Intermittent Fever - -	–	–	14	–	53	–	1	2	1	–	–	4	–	–
Small-pox - - - - -	–	1	–	–	–	–	8	–	–	–	–	1	–	–
Scarlatina - - - - -	1	–	–	–	–	–	–	–	–	–	–	1	–	–
Inflammation of the Brain -	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Apoplexy - - - - -	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Epilepsy - - - - -	–	1	1	–	–	–	2	–	–	–	1	1	–	–
Insanity - - - - -	–	–	–	–	–	1	–	–	–	–	–	–	–	–
Delirium Tremens - - -	–	4	7	–	1	–	2	–	–	–	–	6	–	–
Paralysis - - - - -	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Lungs and Pleura - - - - -	–	14	1	–	3	12	20	5	3	1	–	2	1	–
Phthisis and Hæmoptysis -	–	6	5	–	2	4	5	1	3	–	–	–	2	1
Catarrh - - - - -	7	103	18	7	4	15	38	33	–	10	13	16	27	18
Cynanche - - - - -	8	30	14	–	1	29	34	8	2	2	7	7	5	1
Asthma - - - - -	–	–	–	–	–	4	–	–	–	–	–	–	4	–
Functional and Organic Disease of the Heart - - -	2	6	4	–	1	3	13	2	1	–	–	2	2	–
Hæmorrhoids - - -	–	1	1	–	–	3	1	–	–	–	1	–	4	–
Varix - - - - - -	–	–	–	–	–	5	–	–	–	–	–	–	–	–
Inflammation of the Stomach and Bowels - - -	–	–	–	–	–	–	–	1	–	–	–	–	–	–
Dysentery - - - -	1	–	1	–	2	–	3	1	–	–	–	1	–	–
Diarrhœa - - - -	28	38	26	3	3	31	67	32	3	15	23	8	26	5
Constipation and Colic - -	8	23	4	2	2	9	24	29	1	4	2	9	7	–
Inflammation of the Liver -	–	2	2	–	–	–	1	4	1	–	–	–	–	–
Jaundice - - - -	–	10	1	–	1	2	8	–	–	2	–	1	–	–
Splenitis - - - -	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Kidneys and Bladder - - -	–	–	–	–	–	–	–	2	–	–	–	–	–	–
Syphilis - - - -	10	15	9	4	7	17	82	12	5	–	4	19	9	4
Gonorrhœa - - - -	6	3	5	–	–	2	16	8	1	1	2	7	4	1
Orchitis - - - -	1	18	7	–	1	12	23	2	1	1	2	3	4	1
Stricture - - - -	2	–	1	–	–	–	1	2	1	–	–	–	–	–
Incontinence of Urine, &c. -	–	–	–	–	–	–	–	1	–	–	–	–	–	–
Rheumatism - - -	19	44	49	1	4	26	148	32	3	7	27	19	39	15
Disease of the Bones and Joints	–	–	1	–	6	2	1	2	–	–	–	–	1	–
Inflammation of the Eyes -	1	11	2	–	–	12	5	4	2	–	–	5	2	–
Amaurosis and Cataract -	–	–	–	–	–	–	1	–	–	–	–	–	–	–
Otitis and Deafness - -	1	–	–	–	–	2	3	3	–	–	–	1	–	1
Erysipelas - - - -	–	6	–	–	–	3	1	4	1	3	–	–	–	–
Scrofula - - - -	–	–	–	–	–	–	1	–	–	–	–	–	–	–
Bubo (*Symp.*) - - -	–	13	7	1	–	5	21	1	3	–	–	4	–	–
Phlegmon and Abscess - -	36	210	112	12	7	166	335	76	32	29	47	39	89	12
Ulcer - - - - -	11	54	33	1	–	112	45	5	7	13	22	30	11	2
Psora - - - - -	–	–	–	–	–	1	60	–	1	–	–	10	–	–
Eruptions, &c. - - -	2	–	12	1	–	3	–	4	6	1	3	4	3	–
Dyspepsia and Debility - -	8	7	34	–	1	1	11	19	2	5	9	7	24	1
Headache, &c. - - -	6	6	–	–	–	1	78	25	–	1	3	–	2	–
Scurvy - - - -	–	–	–	–	–	–	–	1	–	–	–	–	–	1
Dropsy - - - - -	–	–	–	–	–	2	1	–	–	–	–	–	–	–
Worms - - - - -	–	–	1	–	1	–	–	–	–	–	–	–	–	–
Wounds and Injuries - -	47	138	87	6	10	143	273	72	14	13	48	37	49	7
Burns and Scalds - - -	2	7	5	1	2	6	13	1	–	1	1	–	4	–
Hernia - - - - -	–	2	–	–	–	3	–	2	–	–	–	–	–	–
Poison - - - - -	–	–	1	–	–	–	–	–	–	–	–	–	–	–
Asphyxia - - - -	–	–	–	–	–	–	1	–	–	–	–	–	–	–
TOTAL - - -	218	845	483	40	120	757	1,361	467	101	111	228	251	404	71

- - - - - - - - - TABLE, No. 6.

- - - in each Ship employed on the MEDITERRANEAN Station.

James Watt.	London.	Magicienne.	Malacca.	Marlborough.	Mars.	Medina.	Neptune.	Pelican.	Procris.	Queen.	Scylla.	Shannon.	Surprise.	Trident.	Victor Emanuel.	Wanderer.	Weser.	TOTAL.
53	39	6	1	57	25	1	25	10	–	16	2	3	8	17	32	12	–	737
2	2	–	1	6	7	–	–	–	–	2	3	–	–	2	1	4	122	227
1	1	–	–	1	15	–	2	–	–	4	–	–	–	–	–	–	–	34
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	a 1	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
2	1	1	1	6	2	–	4	–	–	4	–	–	–	–	1	–	1	29
1	–	–	–	–	1	–	1	–	–	2	–	1	–	–	2	–	–	9
3	–	–	–	2	2	–	1	1	–	1	–	–	–	–	2	–	1	33
–	–	–	–	1	–	–	–	2	–	2	–	1	–	–	–	–	–	6
1	12	1	–	14	3	–	13	1	–	7	5	2	1	2	9	3	1	137
1	6	1	2	9	2	1	7	1	–	4	–	–	–	1	2	1	–	67
43	76	47	25	103	158	20	159	87	–	344	28	21	4	17	33	17	–	1,491
11	37	5	7	57	10	2	21	1	1	112	22	3	2	6	36	1	1	483
–	–	1	–	–	1	–	–	1	–	–	–	–	–	–	–	–	–	11
1	2	3	–	5	–	–	10	3	–	5	4	2	–	–	5	–	–	76
–	3	1	–	1	–	1	7	1	1	6	–	2	–	–	1	6	–	41
–	1	–	–	–	–	–	2	–	–	–	–	–	–	–	1	–	–	9
1	1	–	–	–	3	1	2	–	–	2	1	–	–	–	–	–	–	12
–	–	1	–	1	4	1	1	–	–	–	3	–	–	–	–	–	5	25
5	21	14	11	63	53	10	114	13	–	131	23	19	2	11	3	14	14	829
–	3	–	1	4	4	1	3	2	1	28	6	–	2	–	1	2	1	183
3	1	–	–	–	3	2	–	–	–	–	–	–	–	–	–	–	–	19
2	1	1	–	4	3	–	12	1	–	5	2	1	1	1	1	–	–	60
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
–	–	–	–	–	1	1	1	1	–	–	1	–	–	–	1	–	–	8
64	102	9	–	23	20	1	110	7	1	22	10	13	3	6	9	4	1	602
–	3	3	–	4	20	2	22	6	1	53	4	–	–	–	3	1	–	178
–	14	3	5	24	13	1	23	3	–	6	3	1	1	3	5	–	–	181
2	–	–	1	2	1	–	1	–	–	3	–	–	1	–	–	–	–	18
1	–	–	–	–	–	–	3	–	–	2	–	–	–	–	–	–	–	7
20	63	16	10	93	46	1	108	14	–	129	13	31	6	15	30	15	–	1,043
–	–	–	–	13	4	–	16	–	–	–	1	–	–	–	1	–	–	48
14	6	2	–	1	11	1	20	1	–	8	6	3	1	4	2	–	2	126
1	–	1	1	–	1	–	1	–	–	2	–	–	–	–	–	–	–	8
–	1	–	–	2	–	–	2	–	–	14	3	–	–	–	1	–	–	34
9	1	–	–	4	–	–	4	–	–	1	–	2	–	–	–	–	–	39
–	–	1	–	1	–	–	1	5	–	–	–	–	–	–	2	–	–	11
14	4	1	3	13	1	–	25	–	–	12	7	3	1	3	–	3	–	145
50	217	48	75	251	288	35	360	48	6	205	118	54	25	45	68	45	6	3,146
31	100	13	8	88	131	12	78	12	1	467	21	28	4	9	22	7	3	1,381
38	–	–	–	15	–	–	32	–	–	4	–	–	1	1	–	5	–	168
2	1	–	2	48	7	1	6	6	–	10	6	5	1	4	6	2	–	146
–	12	2	6	58	10	10	71	3	1	74	12	4	6	9	–	17	11	435
–	3	2	1	1	1	3	6	2	–	–	2	–	–	1	4	8	3	159
–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	4
–	–	–	–	2	–	–	1	2	–	1	–	3	–	–	–	1	–	13
–	–	–	–	–	–	–	3	–	–	1	–	–	–	–	–	–	2	8
86	191	31	47	238	215	24	325	35	–	464	54	47	6	42	69	25	6	2,849
–	12	1	3	7	13	–	5	1	–	17	2	6	–	1	3	1	1	116
–	5	2	1	3	–	–	1	–	–	–	3	–	–	1	2	–	–	25
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
462	942	218	212	1,225	1,080	132	1,611	270	13	2,170	365	255	76	201	358	194	182	15,423

a Mycilitis.

NORTH AMERICA AND WEST INDIES.

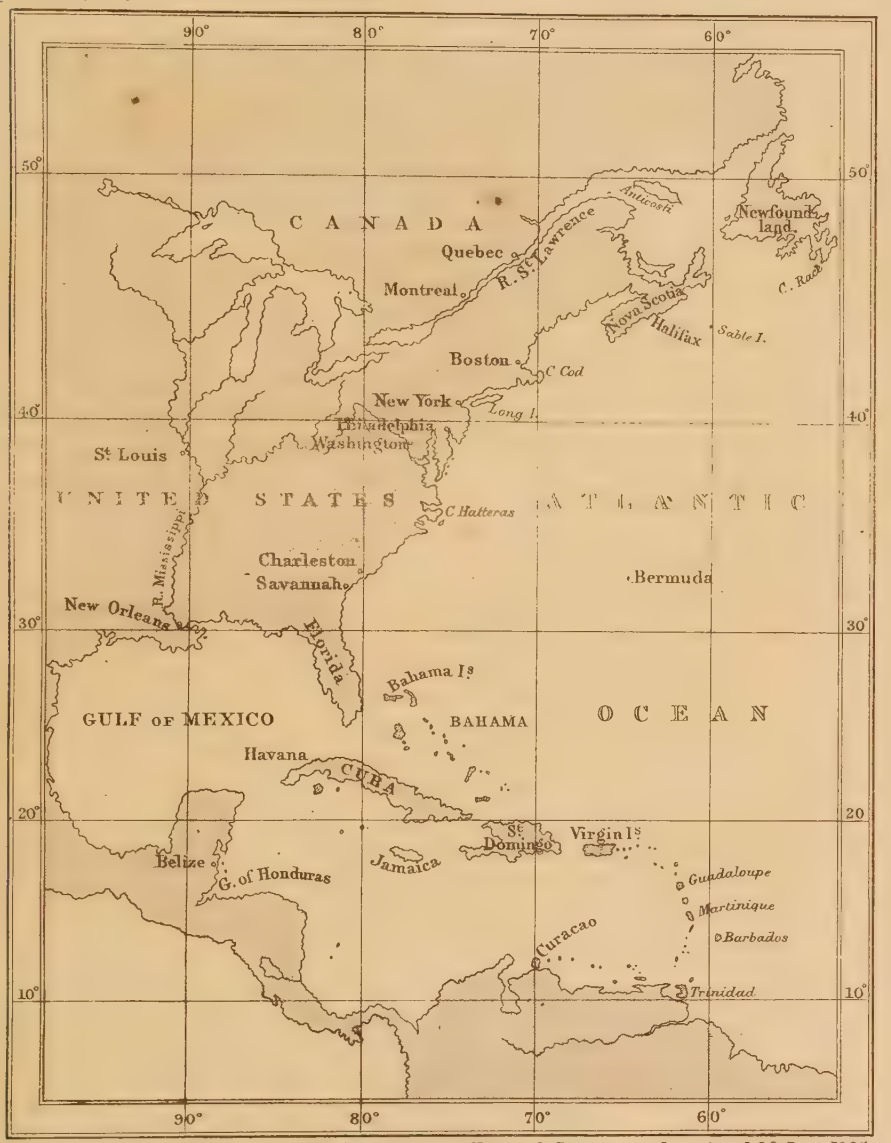
North American and West Indian Station.

The force on the North American and West Indian Station during this year consisted of thirty-six vessels, and a battalion of marines for service in Mexico. Of the vessels, six were ships of the line, five being second rates, and one a third rate: there were eight first-class frigates, three frigates of a smaller class (sixth rates), twelve vessels of the sloop rate, five gun vessels, one receiving ship stationed at Jamaica, and a floating battery permanently stationed at Bermuda. The total mean force corrected for time was 10,225. The time included in the returns varies from three months to a year. The stationary ships Aboukir, Imaum, and Terror showed the smallest loss of service from sickness or injuries, while the healthiest of the vessels employed on the ordinary duties of the station were the Diadem, the Racer, and the Nile. The most unhealthy ships were the Hydra, the Plover, and the Styx. In the Hydra and Styx the affections which caused their high sick rate were of a trivial character, chiefly catarrh, diarrhœa, and boils; but in the Plover, fever of a remittent type became very common after considerable exposure in getting the vessel off the bar at Alvarado, where she was aground for nearly a fortnight. There was no mortality, however, from these affections. The marine battalion furnished a very high ratio of sickness, chiefly from fever, contracted at Vera Cruz and in its neighbourhood.

The number daily sick of febrile diseases averaged about fifty-six, or in the ratio of 5·3 per 1,000, almost precisely the same as in the preceding year. The average daily loss of service from diseases of the organs of respiration was at the rate of about 6· per 1,000; of diseases of the alimentary canal 4·4; of the genito-urinary organs 5·2, almost entirely referrible to venereal disease. The daily loss from rheumatism was 3· per 1,000, from boils and abscesses 7·8, from ulcers 6·8, and from wounds and injuries 9·8. The total number daily sick on board ship and in hospital was about 570 men, or in the ratio of 56·2 per 1,000, a reduction

NORTH AMERICAN AND WEST INDIAN STATION.

(To face p. 72.)



419, Ordered by the House of Commons to be printed 26 June 1865.

reduction as compared with the previous year of about 5·per 1,000.

Fevers.—Of febrile diseases there were altogether 1,609 cases under treatment, 1,236 of which are classed under the head of continued and remittent fevers, 151 under that of yellow fever, 222 were cases of ague, and there were four cases of small-pox and three of scarlatina. Fourteen men were invalided for the sequelæ of the continued and remittent varieties, and two for yellow fever. The mortality from the former class of fevers was forty-nine, or in the ratio of 4·8 per 1,000 of mean force, while the returns from the ships make it appear that the mortality from yellow fever was considerably more than one-half of those attacked. In all probability, however, many cases of fever occurring at the same time, but classed as remittent fever, were only milder forms of the more fatal disease; nevertheless, although the ratio per 1,000 was small as compared with the preceding year, this is not to be attributed to any less malignant character of the disease itself.

Continued and Remittent Fevers.—Only one case of fever of a continued character was under treatment in the Aboukir during the first eight months of the year when she was employed as a man-of-war on the ordinary duties of the station. It was one of considerable severity however, being decidedly enteric, with much diarrhœa, and presenting during its course the distinctive rose coloured spots characteristic of that kind of fever. The patient, a young officer, was subsequently invalided. During the latter part of the year, when this vessel was employed as the receiving ship at Jamaica, the ship's company of the Imaum, the previous receiving ship, having been transferred to her, there were as many as thirty-four cases of remittent fever placed on the sick list, twenty of which were sent to hospital, where one had a fatal termination. These cases made their appearance about the end of October, when the disease, it appears, became epidemic, and affected to a greater or less degree a considerable portion of the ship's company. On its first outbreak the symptoms partook of the general characters of influenza, but as the epidemic went on the attacks assumed a decidedly remittent type, with much increase of the pyrexial symptoms. Many of those sent to hospital and discharged cured had relapses on their return to the ship. It would appear from the reports of the Deputy Inspector General of the naval hospital at Jamaica, that at the time this epidemic was prevailing in the Aboukir there

North American and West Indian Station.

there was a good deal of ephemeral fever about, and diphtheria had made its appearance for the first time in Kingston.

A single case of remittent fever appears in the returns of the Agamemnon. It occurred in an officer, and was of a very mild character.

One hundred and seventy-eight cases of remittent fever are returned by the surgeon of the Ariadne, one hundred and twenty-three of which occurred during the Michaelmas quarter. A few cases had presented themselves towards the latter end of June, after the men returned from leave which had been granted to the ship's company at that time; but it did not assume an epidemic character until the 14th of July, when it increased rapidly. In the meanwhile the vessel had been to Santa Martha and Carthagena, and she did not return to Port Royal until the 27th of July. At this time a very large number of the ship's company had been attacked, but as the fever was not severe in its character, and there were some cases of yellow fever in the naval hospital at Port Royal, it was not deemed advisable to land them. On the 3d of August, however, the hospital having been cleared out, the most severe cases were landed. On the 13th all these patients returned, excepting one, who was labouring under a chest affection, and the ship sailed on the following morning for Vera Cruz and Halifax. She arrived at Vera Cruz on the 25th, fresh cases occurring almost daily, and left on the 27th for Halifax. From this time the disease diminished, and on the 12th of September, three days before her arrival at Halifax, the last case of fever occurred. It was a mild case, the patient being only three days under treatment. There was no loss to the service either by invaliding or death from these cases, and the total period during which they were under treatment on board ship and in hospital gave an average loss of service to each case of about ten days.

Only one case of remittent fever is returned by the surgeon of the Barracouta. It was very speedily fatal, however. In this respect, indeed, and in the fact that it was accompanied with hæmorrhage from the gums and nose, it seemed not unlike a case of specific yellow fever. The patient was taken ill at Nassau on the 23d of December, his symptoms being high febrile action, headache, great thirst, pains in the limbs and back, and languor. There was no colouring of the skin or conjunctiva, but there was much bilious vomiting and scanty secretion of urine. On the 26th, profuse epistaxis and bleeding from the gums supervened. On the morning of the 27th he was much better apparently in every way, all the

the more urgent symptoms having disappeared, but in the afternoon he became incoherent in speech, vomiting set in accompanied with prostration, and he sank in the evening. Yellow fever had been prevalent in Nassau during the previous October. The last case, however, is said to have occurred on the 14th of November.

There were twenty-five cases of fever of a continued or remittent type in the Bulldog. Many of these were of an ephemeral nature, attributable to exposure of various kinds. A very severe case occurred at Nassau, resembling in many of its symptoms, the surgeon says, a severe case of typhus. It appears to have been a variety of what is ordinarily termed bilious remittent fever, associated with some amount of bleeding from the gums. The patient was ultimately discharged to the military hospital at Nassau, where he recovered.

There are only two cases of continued fever returned by the surgeon of the Cadmus. One of these was a mild case of ephemeral fever, the other is said to have been a case of typhoid contracted at Fortress Monroe, where the disease was prevailing to a large extent among the soldiers of the United States army. In this instance every care was taken to isolate the man from the rest of the ship's company, and no other seizures occurred. The man made a good recovery.

Of forty-three cases of continued and remittent fevers returned by the surgeon of the Challenger, twenty were of an ephemeral character, and the remainder of the remittent type, three of which proved fatal. The average duration of each case of ephemeral fever on the sick list was nearly five days, that of the remittent form eight days, but seven of these latter cases were sent to hospital, and there is no information as to how long they remained there. During the first quarter of the year this ship was moored under the walls of Fort St. Juan de Ulloa, off Vera Cruz, and it was at this time that almost all the more severe cases of fever occurred. Those that proved fatal occurred in marines of the battalion doing duty in Mexico, and cannot therefore be said to have been part of the complement of this ship. They died on board, however, on their passage to Halifax.

In the Cygnet the few cases of fever returned were of an ephemeral nature chiefly, and there were none of a continued or remittent type either in the Desperate or the Diadem.

There were thirteen cases of primary fever in the Donegal, ten of which were of a remittent, and three of a continued type.

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type. This ship was chiefly employed off Vera Cruz in the first quarter of the year, and it was in connection with this locality that twelve of these cases occurred, two of them proving fatal. The surgeon* in his nosological return for that quarter, says, "During the months of January and February the ship's company continued healthy, the average number on the sick list being about thirty. The vessel was lying at anchor during the latter half of that period off Sacrificios, an island a few miles distant from Vera Cruz; though considered about the healthiest time of the year, the climate proved very inimical to the Marine Battalion whilst on shore; fifty of our marines were landed to replace their sick, and of these, two-thirds were placed on the sick list before the end of March with fever, dysentery or diarrhœa, the cause of the sickness no doubt being malarious poison, and the noxious atmosphere of Vera Cruz, engendered by filth from neglect of proper sanitary measures. The fever cases are classed under the head of remittent, febrile accessions being generally noticed towards evening. The worst cases however assumed a typhoid form, those being for days preceded by prostration, anorexia, and diarrhœa, without any well-marked febrile disturbance at the outset."

On the 7th and 8th of March this ship embarked 276 men of the Marine Battalion, of whom about 100 were sick. With these she left Vera Cruz on the 9th of March, and arrived at Bermuda on the 25th of the same month. During this passage all the cases of remittent fever occurred, the patients being, in every instance, marines who had been doing duty on shore. The two fatal cases were complicated with severe diarrhœa, and in both there was ulceration of the glands at the lower extremity of the ileum, and of the mucous membrane of the large intestine.

In the Greyhound, Hero, and Hydra, the cases of primary fever were few and unimportant; but in the Immortalité fifty-one cases are returned, of which thirty-six were of an ephemeral nature; of the remaining cases two are returned as typhus, one as cachexia febrilis, and twelve as remittent fever. Of these last cases, one proved fatal.

Ninety-six cases of primary fever are returned by the Jason, of which ninety-two were cases of the ordinary remitting fever of the station, and four of yellow fever. This ship had suffered very severely from yellow fever during the previous

* Surgeon John King.

previous year, and had in consequence passed some time at Halifax; towards the end of 1861, however, she was again ordered into the Gulf of Mexico, and during the first quarter of 1862 was at anchor off the Island of Sacrificios. During this time only a few cases of continued or remittent fevers occurred; but they became more frequent in the following quarter when the vessel was off Fortress Monroe, in Virginia, where she remained from the 8th of June until the 28th of August; they prevailed to a still greater extent, however, during the last quarter of the year, when she was chiefly employed at Carthagena, Santa Martha, and on the North Coast of South America. The total days' sickness from all these cases gave an average of thirteen days' treatment to each case on board. Of the whole number only two were sent to hospital. One man in whom the disease was complicated with dysenteric symptoms was invalided. There was no loss by death from these fevers.

Only eleven cases of primary fever are returned by the surgeon of the Liffey. They were of an unimportant character, although the average duration of each case on the sick list was nearly a fortnight.

The Royal Marine Battalion destined for service in Mexico, consisting of thirty-five officers and six hundred and sixty-five men, was embarked at Plymouth on the 9th of November 1861, on board Her Majesty's Ships Conqueror, Donegal, and Sanspareil, and sailed on the 13th of the same month. On the arrival of these vessels at Port Royal, Jamaica, the detachments on board the Donegal and Conqueror were transferred to the Mersey and St. George, and on the 24th of December the squadron sailed for their destination, and anchored, on the evening of the 6th of January 1862, under the Island of Sacrificios, off Vera Cruz. On their arrival they found a large Spanish squadron at anchor at Sacrificios, and learned that the Spaniards had landed and taken possession of the town of Vera Cruz, and the forts. On the following day the French squadron arrived, and commenced at once to land their troops and field equipment. It had been arranged that the marines were to be landed at once; but this was found to be impracticable, from the difficulty of obtaining adequate barrack accommodation. The Spaniards would appear to have taken possession of every available building, so that it was proposed to place the English force in an old church; this was found, however, to be

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be in such a filthy state, that on representation being made to the commodore commanding the expeditionary force, he decided that the marines should not be landed until proper quarters were provided for them; this resulted in the Spaniards evacuating the Hospicio, a very fine building, to which the battalion was transferred on the 16th of January. This building accommodated all the men, but it was rather crowded; the officers were quartered in different houses in the town. Although all sanitary measures that could be adopted were had recourse to, it soon became evident that sickness was rapidly on the increase, fever and diarrhœa being the most prominent affections On the 12th of February the sick list had increased to 122, and as disease seemed to be progressing, it was thought advisable to remove some portion of the force from the town; accordingly between the 13th and 21st of February, about 400 men were sent to Medellin, a place about seven miles off, where they lived in tents on the banks of a river. On the 14th of February forty sick were sent to the Sanspareil, and on the 15th another party of forty, sick and convalescents; on the 19th, thirty-eight patients and five invalids were also embarked, leaving the sick list on shore fifty-seven, which by the end of the month had again risen to 110.

On this last date 170 marines were landed from the squadron to take the place of those sent sick and convalescent to the Sanspareil. These men only remained one night at Vera Cruz. On the following morning they left by train for the camp at Medellin. They only remained sixteen days on shore, having re-embarked in their respective ships on the 6th of March; during this time a large amount of sickness occurred amongst them.

Towards the end of February, sickness and mortality being on the increase, and the fevers having assumed a very low form, every preparation was made for proceeding to Orizaba, a mountain about eighty miles from the coast, where it was hoped they would obtain all the comforts of a temperate climate, and be removed from the noxious influences that abounded at Vera Cruz; orders, however, had in the meanwhile arrived, which prevented this measure being carried out, and the officer commanding the expedition not being permitted to leave the coast, called upon the surgeon of the battalion to report upon the advisability of retaining the marines longer in Vera Cruz, considering the season of the year, and the amount of sickness that prevailed.

vailed. The medical officer's recommendation was that they should be removed as soon as possible to a more healthy climate, which was acted upon at once, the desire to re-embark the troops being much heightened, it is stated, by the circumstance that on the 4th of March a case of yellow fever had occurred in hospital, and proved fatal. On the 6th of March the detachments from the ships re-embarked, and twenty sick men were sent from barracks to the Sanspareil. On the 7th eighty-seven sick were sent to the Donegal, and on the 8th thirty were embarked on board the same ship. About 150 men were left behind as a guard to the British Minister and the Commodore, and the remainder of the battalion embarked in the Donegal and Sanspareil, the former sailing for Bermuda on the 9th, and the latter on the 13th of March.

In the Donegal the condition of the sick very much improved as she got to the northward, and on the 12th day after leaving Vera Cruz, the surgeon of the battalion*, who embarked in that vessel, states, that the fevers assumed an intermittent character. On the 25th of March she arrived at Bermuda; on that day there were eighty-four men of this part of the battalion on the sick list, twenty of these being cases for hospital, about forty convalescent, and the remainder doing well and able to be out of bed for some hours daily. The ship having been placed in quarantine, a survey upon the condition of the sick was ordered by the Commander-in-Chief. This resulted in a report, of which the following is the conclusion:

"Firstly. That the disease is essentially one of typhoid remittent fever, with dysentery, amidst which there has been a scanty development of cases with yellow fever symptoms.

"Secondly. That the disease is of malarious origin, and was contracted on shore at Vera Cruz, and that it does not appear to have extended to the crew of the ship.

"Thirdly. That there has been no positive increase of the disease since leaving Vera Cruz.

"Fourthly. That three men of the Royal Marine Battalion have died on the passage, making in all, as far as we have ascertained, twenty-one deaths.

"Fifthly. That we have every reason to concur in the opinion of the surgeons of the Donegal and of the Royal Marine Battalion, that there

* Surgeon John Elliott.

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there has been no display of infectious or contagious properties in this disease.

"We now beg to submit that the hospital cases be landed as soon as possible at Ports Island, and that the marines be removed to the Medway hulk.

(signed) *W. R. E. Smart*, M.D.,
Deputy Inspector General.
James Vaughan, Staff Surgeon,
Her Majesty's Ship, Hero.
John Watt Reid, M.D., Surgeon,
Her Majesty's Ship, Nile."

This report and recommendation was followed by an immediate order from the Commander-in-Chief, that all the bad cases should be landed at Ports Island, which was accordingly done. On the 29th of March the Sanspareil arrived with the head quarters of the battalion, and a similar report and recommendation to that on the Donegal having been made in her case, twenty of her worst cases were immediately landed.

On the 20th of April all the men who were in a fit state to embark, were ordered on board the Sanspareil for a passage to England, and on the 23d she sailed with 330 officers and men of the battalion. On the 3d of May all the convalescents were embarked in the Donegal, which sailed from Bermuda on the 6th, and arrived at Plymouth on the 23d of the same month. No deaths occurred during the homeward passage, and on her arrival there were only two men of the battalion on the sick list.

The force left as a guard to the Minister and Commodore after the embarkation of the battalion, consisted of ten officers and 154 men. They remained at Vera Cruz until the 16th of April, when they were embarked in the Challenger, and sailed for Halifax *viâ* Havanna, Nassau and Bermuda. During their stay in Mexico they suffered severely, the mortality resulting therefrom being twenty deaths, nine of these being cases of yellow fever; thirteen of these deaths occurred between the 1st and 23d of April. The diseases from which they principally suffered were fevers, complicated for the most part with bowel affection and dysentery. The force at this time garrisoning Vera Cruz appears to have comprised 250 Spaniards, 250 French, and 150 English. The Surgeon of the Challenger,* who was ordered to take charge of the special hospital

* Surgeon W. N. Brake.

hospital in connexion with this detachment, in referring to the deaths which took place between the 1st and 23d of April, says, "This great mortality has not been confined to the English; the French and Spanish troops have suffered in a much greater degree. The French lost, in one week, from the 6th to the 13th instant, twenty men; we lost in the same days seven. Indirectly I heard, that in the Spanish Hospital seventeen died in one day, and forty-seven during the week, but I cannot vouch for the accuracy of the statement." It would appear that while there was a most cordial interchange of professional information between the French and English medical officers, the Spaniards were not so communicative, so that no trustworthy knowledge could be obtained as to the amount of sickness in the Spanish force. It would seem to have been great, however, from the circumstance that they were constantly sending steam vessels to Havanna, filled with invalids.

Much difficulty has been experienced in ascertaining from the numerous documents in office connected with this force, what was the precise nature of the fever with which it was affected during its stay in Mexico. A very careful analysis, however, of the returns, would lead to the conclusion that up to the 9th and 13th of March, the dates on which the battalion re-embarked for England, they were chiefly forms of remittent fever, complicated with dysentery, and of specific typhoid or enteric fever; while after those dates, yellow fever seems to have prevailed in the detachment left behind, and to have caused nearly one-half the mortality which occurred in it. This conclusion is arrived at from a minute examination of the history of each recorded case, and from the morbid appearances revealed by post-mortem examination of the body in all those cases in which an inspection was made. It is not possible, however, from the returns, to obtain any accurate information on this subject, for while in one part of a return all the cases and deaths from fever are tabulated as remittent fever, yellow fever not appearing in the Table at all, in another part of the same document the majority of the deaths are entered as being caused by yellow fever. And so in the different ships in which the men were embarked, the fevers are variously entered as fever, fever and dysentery, diarrhœa and typhoid fever, dysentery and fever, and diarrhœa alone, by the different medical officers. Out of this confusion the following results have been obtained:

Twenty-six men died of fever in the hospital at Vera Cruz, ten of these were cases of undoubted yellow fever.

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In the remaining sixteen there was more or less abdominal complication, and in twelve of these in whom post-mortem examinations were made, typhoid ulceration of the ileum was observed, Peyer's patches being particularly affected.

Ten of the men re-embarked in the Sanspareil died of fever. These are all returned as cases of fever and dysentery, and in all the cases in which post-mortem examinations were made, more or less ulceration of the large intestines was found.

Four men died of fever in the Donegal, in which ship no post-mortem examinations could be held, on account of the crowded state of her decks. In these cases there were very marked abdominal symptoms, and they very much resembled, in their general features, true enteric fever.

In the hospital at Port Island, Bermuda, there were six deaths from fever, and in all of these, ulceration of the mucous membrane and glands of the ileum was found.

It may be added, in connection with the medical history of this force, that on their being disembarked at Vera Cruz they were in perfect health, having only eighteen on the sick list, men suffering principally from syphilis, boils, and trifling injuries. The building they occupied as a barrack formed a square; it was two stories high, with a piazza. The whole building and square was floored with marble; it possessed a large tank full of rain water; a new English cooking place had been fitted in it; there were bath-rooms, well-water for washing purposes, and latrines were established, the contents of which were removed every morning. The building, however, was barely sufficient to accommodate the men, there being only 300 cubic feet of breathing-space to each man; but this deficiency was in some measure obviated by the fact, that a certain number of men were always on duty, and more particularly by the rooms being very well ventilated. The surgeon of the battalion states that "the men were provided with double mats, a hammock, and one blanket for bedding; they were supplied with very good cap covers, and blue serge tunics and trousers; they were relieved off guard every two hours, and every sanitary precaution strictly carried out." The officers were quartered in different parts of the town. Three or four usually resided in the same house, and they had a general mess; they suffered very little.

At the time of the disembarkation of the English troops, the inhabitants of Vera Cruz, as well as the Spanish soldiers, were

were suffering severely from diarrhœa. The surgeon of the battalion says he was informed by an English merchant, that this disease was rare in Vera Cruz, and that the inhabitants had termed it "Convention," in allusion to the belief they entertained that its existence was owing to the presence of the allied troops. The surgeon states his belief that it was introduced by the Spanish troops from Havana. It appears, more probable, however, that the disease was the result of the suspension of all municipal sanitary regulations during the occupancy of the forces.

The surgeon of the Challenger says, in his journal, "The city of Vera Cruz is situated on a level surface, the fall from its upper wall towards the sea being so trifling, that the courses for foul water, &c., except during the heavy rains, remain filled, and require repeated sweeping during the day, which under the conjoint rule of France, Spain and England became neglected. The Mexicans were aware of the ills arising from this stagnation, and I hear, were very particular as regards this act of cleanliness. The numbers of turkey buzzards kept down any accumulation of offal, every thing being placed on the outside of the houses for removal by these scavengers. The city is well built, the streets are at right angles to each other, and from each house a small open watercourse or drain leads into the main drain, which is also open, and passes down the centre of each street." One of the assistant surgeons* of the battalion says, "During the day, when the sun was out (although this was the healthy season) the smells arising from the streets, which all contain open sewers, besides being the general recipient of all sorts of filth, was most offensive, and highly injurious to health. The only scavengers observable in the town, were dogs and turkey buzzards." The surgeon of the Sanspareil,† in alluding to the cases of fever and dysentery which occurred on board that ship, amongst the men of the battalion embarked for a passage to Bermuda, states it as his belief, that the causes of these affections were,—long marches under a tropical sun after landing, sleeping at night in white trousers and on damp ground, stripping on the marsh beside brooks to wash and dry their clothes, sleeping on the ground-floor in barracks, the floor being stone, with only the interposition of a mat between

* Assistant Surgeon J. R. Anderson.

† Surgeon M'Swiney.

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between the ground and the body, exposure to the foulest stenches from the open sewers, and finally, drinking, bad liquors and water. There can be little doubt that some of these are powerful predisposing causes to both fever and dysentery, and the large proportion of cases in which the pathognomonic lesions of enteric fever were present, point to the defective condition of the sewerage as exerting a most baneful influence. A very considerable amount of disease seems to have originated at the camp at Medellin. This place is a small village a few miles from Vera Cruz. The encampment was bounded on one side by a fast-flowing river, in which the men were permitted to bathe morning and evening. On the other three sides it was bounded by low brushwood, here and there dotted with clumps of trees. This brushwood appears to have been cleared away as much as possible, to admit of the tents being pitched. The men were unprovided with beds, and were therefore obliged to use dried grass and brushwood as a substitute; they suffered very much from the attacks of insects as a consequence, but that more formidable evil, fever, complicated with bowel affection, soon made its appearance amongst them. Many of these men who were left behind on the re-embarkation of the battalion, to form part of the guard, suffered severely. One of the medical officers in giving a list of the sick of the English garrison at Vera Cruz, between the 9th and 27th of March, says, "I remarked that almost all those attacked by diarrhœa and fever in the above list were formerly in the camp at Medellin, and the intermittents which took their origin from thence were very severe. I believe the same was observed in those embarked after their departure from Vera Cruz."

There were 181 cases of primary fever in the Orlando. They were all of the remitting type; some of them of great severity, one of these proving fatal. The total days' sickness, however, on board ship, only gave an average of seven days' treatment to each case. These cases were not spread over the whole year, but were chiefly confined to the two last quarters, during which, on two occasions, they prevailed, in an epidemic form, on board. On the first of these occasions the ship was at Bermuda, where she had lain for five months. The epidemic was ushered in by a few cases of intermittent fever, but soon the disease assumed a more severe character, and between the 7th of July and the end of the month thirty-one cases were under treatment, thirteen of which were

were sent to hospital. In all there was considerable gastric irritation, and subsequently the bowels became affected, diarrhœa being present in many cases. Two cases sent into hospital at Bermuda are detailed by the Deputy Inspector General.* In one of these, admitted on the same day on which he was seized, there was "pyrexia, stupor, incoherent muttering, subsultus of hands, with rolling of head and trunk. Short, sighing respiration, quick pulse (108), bilious vomiting, and injection of the sclerotics." On the following day there was scybalous purging, and he lay unconsciously moaning and talking, with an inclination to be violent when roused. In the evening there was frequent bilious and watery purging, and vomiting; and, later in the evening, decided remission took place. On the 17th day from the commencement of the attack he was discharged as a convalescent to his ship, which was going to sea. During the progress of this case the remissions occurred daily for the first three or four days, after which the fever disappeared altogether The purging continued, however, and he remained long in a very weak state. The other case presented the characteristic features of what is known as the algide form of the disease. This man had been unwell for several days, but had made no complaint until he was too ill to move about any longer. On the day following his entry on the sick list he was sent to hospital with the following report: "This morning there was vomiting of a black fluid with ropy mucus. Pulse 140, small; tongue dry and brown." On his admission into hospital he was "in a state of collapse, his voice was low, he was moaning, his features were pinched, the surface was cold and wet, the fingers were corrugated, the pulse scarcely felt, the pupils contracted, the sclerotic venous-congested; the respirations were 17, slow, shallow, and thoracic; there was constant vomiting of shreddy, bilious, watery fluid; the stools were frequent, thin, yellow, not very offensive; scanty urine was passed at stool; there were brownish maculæ on the trunk, and there was great thirst." This condition continued almost unchanged until the evening of the third day, the tendency to purging abating, while the vomiting continued, and petechiæ appeared. "It was noticed that every evening after sunset a decided stage of increased prostration, with cold tongue, supervened, lasting till after midnight." On the 15th day this patient was able to move about, and steadily convalescing. The Deputy Inspector General says that

* Dr. W. R. E. Smart.

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that these were the two worst cases that occurred on board the Orlando. They indicate, however, although in an exaggerated degree, the general characters of the other cases.

The cause of this outbreak of fever is considered to be somewhat doubtful by the surgeon of the ship,* but on a review of all the circumstances connected with it, he is inclined to refer it to the fact that a southerly wind was blowing over the island of Bermuda at the time, and that there were frequent alternations of rain and sunshine which, from keeping the decks in a constantly damp state, produced a miasm on board. He is also of opinion, that it "probably in some measure arose from the gases emanating from coals on the dockyard jetty." It appears, however, that immediately before this visitation of fever general leave was given to the ship's company, and it is not surprising that, as a result of the consequent debauchery and exposure, thirty-one cases of fever of more or less severity should have occurred in a complement of 600 men, whose physical condition it seems was rather indifferent. The Deputy Inspector General mentions, that although the ship was in the highest state of perfection as regards cleanliness and internal economy, the ship's company exhibited a decided proclivity to diseases of a low type, cases of phlegmonous erysipelas, and other allied affections having been at various times sent into hospital from her.

From the 12th of September to the 4th of October the Orlando was stationed at different times off Colon, Carthagena, and Porto Bello; and during this period sixteen cases of fever of a similar character to that which had previously appeared at Bermuda, were under treatment. The worst case at this time occurred in an officer who was compelled to sleep one night on shore at Aspinwall, and who was a few days afterwards attacked with a very severe form of disease, from which there was great difficulty in rallying him. In all the cases there was continued vomiting, with great general debility, and abdominal pain commencing at the left hypochondrium, and gradually extending to the region of the liver. In some there was diarrhœa. From the 9th to the 21st of October the ship was refitting and coaling at Jamaica, and during this period general leave was given to the ship's company. The surgeon says, "It was foreseen that much fever in the Orlando would be the result of the drunkenness and dissipation on shore at that time of the year, but it always being the custom

* Dr. W. G. Goldin.

custom to grant leave to the crews of Her Majesty's ships at Jamaica, there would have been much disappointment and dissatisfaction if they had been restrained from going on shore." This anticipation was fully realised. On the 21st of October, the day on which the vessel left Jamaica, a case of remittent fever was placed on the sick list, and the disease continued to prevail until the 15th of December, so that during this quarter of the year no fewer than 106 cases were under treatment. Alluding to this outbreak, the surgeon says, " It is worthy of mention, that the greater number of cases placed on the sick list occurred on the 10th or 11th day after the exposure on shore. The men were on leave, in watches, extending from the 14th to the 19th of October ; the larger number of cases were put on the sick list on the 29th of October, ten being then added ; cases of fever, however, continued to be added until the 15th of December, that is, during fifty-five days after the departure of Her Majesty's ship Orlando, from Jamaica." Of these cases, one, placed on the sick list on the 30th of October, proved fatal within thirty-six hours. The patient was delirious when brought to the sick bay, and never rallied. In a large number of instances dysenteric purging complicated the seizure, and one man who is returned as having died of dysentery, was first labouring under an attack of this same form of fever. It is reported in the Journal that " the French Imperial iron-plated frigate ' La Normandie ' lost during the month of December 1862 several officers and many of her crew from fever. The Commodore, who was one of those who died, stated some little time previous to his death, that ' many of the French sailors had died from dysentery, which, during the colder months, was nearly as fatal as the fever'."

There were 202 cases of fever of a continued or remittent type in the Phæton, the average duration of each case on the sick list being ten days and a-half. During the greater part of the year this vessel was stationed on the coast of Mexico ; and during the Michaelmas quarter, when she was employed between Sacrificios, Vera Cruz, Tampico, and Havanna, she had the largest amount of sickness from febrile disease. In tabulating these affections, 194 are returned by the surgeon of the ship* as cases of continued fever ; there are five cases of ephemeral fever, and only three of remittent fever. It is more

* Dr. J T. Caddy.

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more than probable, however, that the largest proportion of these cases were various forms of the ordinary remitting fever of the West Indies. Two of these cases proved fatal; in one the remissions were particularly well marked, and in the other the surgeon states he suspected ulceration of the glands of the small intestines to have been present. The body was not examined. The patient died on the twenty-second day of the fever, and during his illness it is said "the maculæ over the abdomen, the sordes on the teeth and gums, and the abdominal pain were characteristic." The ship had only recently arrived on the station, and her complement was composed of very young men, who were liable to be readily acted upon by the trying climate of that portion of the station on which they were principally employed throughout the year.

There were seventy-five cases of primary fever in the Plover, a small gun vessel with a complement of about seventy-five officers and men. With the exception of some cases of ephemeral fever they were all of a remittent type, and referrible to exposure and hard work to which the men were for about a fortnight subjected in getting the vessel off the bar at Alvarado, on which she had grounded during a norther, but more particularly to a visit which was paid to Minatitlan, a town situated about twenty miles from the mouth of the river of the same name. The place is about 130 miles from Vera Cruz. The banks of the river are low and swampy, although not so much so near the town, which was stated by the English residents to be very healthy, and very free from fever, excepting during the rainy season. The ship was detained in the river longer than had been intended by the setting in of a norther, which rendered the bar impassable. The medical officer* attributes the fever which afterwards affected the ship's company to this detention. The average number of days each case of remittent fever was under treatment was about eleven, while the cases of ephemerai fever were only about four days on the sick list. They caused no loss to the service by death, but one man was subsequently invalided for the sequelæ of the disease.

Nineteen cases of primary fever appear in the Returns of the Rinaldo, but twelve of these were contemporaneous with an outbreak of specific yellow fever in this ship, and as they were

* Assistant Surgeon G. Goodman.

were traceable to the same origin, they were doubtless only modified forms of the more malignant disease. They will be alluded to when the cases of yellow fever in this ship come under consideration.

Yellow Fever.—Three cases of yellow fever appear in the Returns of the Ariadne. They occurred during the course of the epidemic of remittent fever which visited this vessel in July and August, and were doubtless severe forms of the same fever. The cases are detailed in the surgeon's journal. They all presented irregular remissions: one was characterised by profuse bilious vomiting, and in another head symptoms set in very early, with epistaxis. Under the influence of quinine they steadily improved. This agent was administered to the ship's company generally, and to its prophylactic virtues the surgeon attributes the fact that the disease did not extend further amongst the men.

In the "Immortalité" twelve cases of yellow fever are returned, of which two proved fatal, one on the third, the other on the sixth day. These were also most probably only severe cases of the ordinary endemic remittent fever of the West Indies. They appeared at Barbadoes after general leave for forty-eight hours had been granted to the ship's company, during which time the men conducted themselves in the most reckless and dissipated manner. The two fatal cases are detailed by the surgeon* in the Journal. Both were characterised by distinct remissions, and both previous to death were seized with violent convulsions, accompanied with loud screaming. On post-mortem examination of the bodies, in one case the stomach was found to contain a large quantity of black glairy fluid, and in both the skin became yellow before death. These are conditions, however, not unfrequent in the more severe forms of remittent fever.

On the cases assuming a severe form, the surgeon recommended that the ship should proceed to sea and cruise to windward under easy sail for a time, until it was seen how far the fever would extend; and after a few days the visitation ceased. The surgeon says that he believes that all the cases attacked, "resulted from the imbibition of the malarious poison while on leave, the men being more liable to its induction from their conduct on shore. Therefore, these may

* Dr. W. Loudon Gordon.

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may be considered mere sporadic cases of an artificial growth, and having neither strength nor character sufficient to multiply its existence, for of the contagious nature of the true malignant yellow fever I have no doubt." The assistant surgeon* in referring in his journal to some of the cases which occurred in the month of July, says—"All the men who were attacked had been on forty-eight hours' leave, and on inquiry it was found that each of the nine men had been very much intoxicated, and had been lying in the streets exposed to the sun, and most of them also to the night air. This was sufficient predisposing cause for the development of almost any grave disease; and taking into consideration that there was proof of the exciting cause (malaria) existing at the time in the island, we are astonished, not that so many were seized, but that so many who were so frightfully exposed should have escaped." The following, he states, were the general symptoms of this fever—"Vertigo, headache (which at first generally exists in the back part of the head, but afterwards almost invariably affects the temples and orbits); severe aching pains in the loins and calves of the legs, shivering and frequently vomiting; afterwards great heat of skin, pulse full and regular; tongue thickly coated, red and dry at tip and edges, and great thirst. This is followed by great prostration, weakness, and a tendency to coma. In one patient there were strong convulsions. In another case there was great irritability of the stomach, with most obstinate vomiting; but in none of the cases was there observed any black vomit during life. In one case, however, the stomach was found one-quarter full of black matter. One symptom noticed in all the cases was persistent orbital pain, which steadily remained for some time during convalescence. In none was there observed any yellowness of the skin, excepting after death in the cases which proved fatal." The cases in the Immortalité, there seems reason to believe, were cases of ordinary remittent fever, aggravated by debauchery and insolation.

Four cases of yellow fever appear in the returns of the Jason, two of which proved fatal; one on the 4th, the other on the 5th day. This ship had suffered severely from yellow fever during the previous year; and there was in consequence a watchful anxiety over every case of fever that presented itself

* Dr. Geo. Monteath.

itself after her return to the Gulf of Mexico. During the quarter in which these cases of yellow fever occurred, the vessel was at anchor off the Island of Sacrificios. Two cases of remittent fever of some severity had occurred in January and February; one of these being complicated with dysentery, but otherwise there was no febrile disease in the first two months of the year. The surgeon,* in a special report, says—"In March the average of the thermometer was only 74 degrees, but towards the end of the month, although no marked increase of temperature took place, the weather became close and muggy, and the northers ceased. Between the 2d and 21st of March, seven cases of fever of different degrees of severity and duration occurred, but none were of such a nature as in themselves to cause any alarm. On the 22d, however, the blacksmith, who for some time before had been employed on shore, was placed on the list with a severe attack of fever; on the 23d, a marine artilleryman was added, who had never been on shore; on the 28th, a private marine who had served on shore; on the 29th, one of the carpenter's crew, who had had yellow fever last year; on the 30th, the captain's cook, who had never been out of the ship; and on the 1st April, a private marine who had been one of the marine brigade. With the exception of the man belonging to the carpenter's crew, none of the men had previously had yellow fever, and he was never in any danger; he was sent to duty after six days' illness. The marine artilleryman died of yellow fever, after four and a-half days; the captain's cook after three and a-half days, with black vomit. One of the marines, though he had black vomit in its incipient stage, is now convalescent, and so also is the other." During the epidemic which prevailed in this ship in the previous year, the surgeon had laid much stress on the offensive state of the bilges, as being possibly the exciting cause of the fever. In the present report, he says—"Before leaving Halifax the ship had been cleared out, and accumulations of filth removed from places inaccessible before; obstacles to the passage of filth into view had been taken away, in the shape of strainers or roses placed across the bilge under the tanks, and in other localities out of sight and reach. Bulkheads which prevented the free circulation of air had been broken down, and additional hatches had been cut both on the upper and lower deck." He is therefore of opinion that there was nothing in the state of

* Surgeon John Forbes.

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of the bilges to account for the appearance of these cases of yellow fever. Immediately on their appearance, the ship was ordered to the northward, and she accordingly started for Halifax, *viâ* Bermuda, on the 3d of April. Seventeen cases of fever presented themselves between the date of the entry of the last case of yellow fever (1st April) and the 13th April, after which no cases that could be in any way connected with yellow fever occurred. Only one of these cases was of any severity; they are all classed as cases of remittent fever, as the surgeon says "there were certainly distinct remissions;" he, however, appears to entertain a doubt whether they might not have had some connexion with the more virulent form of fever, of which there can be little doubt they were merely milder cases. Yellow fever had made its appearance at Vera Cruz about the time these cases appeared in the Jason.

In the Landrail there were ten cases of yellow fever, seven of which had a fatal termination. The narrative of the outbreak of the fever in this ship is very interesting. On the 25th of June the vessel left Havanna for New Orleans, arrived off the mouth of the Mississippi on the 30th, and anchored at New Orleans on the 2d of July. The men were particularly healthy; the city of New Orleans was also healthy so far as could be ascertained, and there was certainly no yellow fever in any of the public hospitals. The medical officer,* in the journal of the ship for the period, says—"On the 10th of July the Landrail sailed from New Orleans for Key West, calling off Mobile, to communicate with the English Consul, who came out of the harbour in a small steamer under a flag of truce. After a delay of three hours she proceeded to Key West, where she arrived on the morning of the 16th of July, and commenced coaling from a barque which had been put out of quarantine the day before. This collier barque had arrived at Key West from Havanna about a month previously, with fever on board. She was put in quarantine, and her sick sent to hospital, where one of them died, the surgeon who attended him said, of "bilious intermittent fever," in three days after her arrival. The first day the barque lay alongside this ship another of her crew was seized with febrile symptoms, and was taken to the hospital on shore, where I have since heard he died after a short illness. The

* Assistant Surgeon John S. Dobbyn.

The weather was extremely hot, the thermometer standing at eighty-nine to ninety degrees in the shade. During two days the collier lay alongside while the crew of the Landrail were engaged coaling, and it is possible that, exposed to these exciting causes, they might have caught the fever which subsequently broke out from this collier, especially as Her Majesty's ships Rinaldo and Petrel, both of which coaled a few days afterwards from the same barque, suffered in a similar manner to this ship and about the same time. On the 18th of July the Landrail sailed for Havanna and Port Royal with no case on the sick list. On the 19th, at 11 A.M., an able seaman was attacked with febrile symptoms. At 12.30 P.M. of the same day the ship entered Havanna harbour, and the captain went on shore to communicate with the English Consul. After a delay of two hours the Landrail again got under weigh and proceeded towards Port Royal. On the next day, the 20th, a boy was attacked with febrile symptoms, and died in three days. On the same day a marine complained of febrile symptoms, and during the same night four men were similarly attacked. No fresh cases now occurred until the 23d, when an able seaman was attacked, but not with the same malignant symptoms as the other men. On the 24th of July, at 6 P.M., the ship's steward's assistant was attacked with febrile symptoms, and on the next day the Landrail arrived at Port Royal, when all the sick were landed and sent to the Royal Naval Hospital, where six of the eight cases sent have since died." It was now deemed advisable to send the ship at once into colder latitudes, and accordingly on the day following her arrival at Port Royal she proceeded to sea, and made for Halifax. On that day a marine was seized with febrile symptoms. This was the last case of yellow fever.

There can be no doubt as to the specific character of this fever. Between the 19th and 26th of the month, in a very small ship's company, ten men were stricken down with it, and by the 30th seven of these were dead.

Fourteen cases of yellow fever appear in the return of the Petrel, being the nearest approximation to the absolute number of cases of this disease that appeared on board; for both the medical officers of the vessel fell victims to it, and the information obtained by the officer who succeeded them was mainly hearsay, and necessarily very defective. A considerable number of cases of intermittent fever appear in the same return, and some of these it is stated were probably cases of yellow fever. However this may be, there can be no

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no doubt that the Petrel visited Key West, and coaled from the same barque that had already communicated yellow fever to the Landrail, and that within a few days afterwards a number of her officers and men were seized with fever, of which eight died with all the features and characteristic rapidity of yellow fever. It would be of little use to comment upon these cases, for from the returns of the Petrel during this period no reliable information is to be obtained. The surgeon of the Rinaldo,* however, in detailing the history of the outbreak of yellow fever in that ship, incidentally mentions the Petrel, and from his report, which is a very clear one, all the information of practical value may be gained. To that report it will be necessary now to refer.

Fourteen cases of yellow fever appear in the returns of the Rinaldo, of which seven had a fatal termination; but coincident with this outbreak were twelve cases of fever which are classed as remittent, but which probably were mere modified forms of the more malignant disease. The surgeon's report on this outbreak of yellow fever is as follows:—

"Her Majesty's sloop Rinaldo anchored off the city of New Orleans on the 1st of July 1862. She had been employed for several months about the north part of the station, and had been for some time at anchor in the Chesapeake. She left Hampton Roads early in June for the southward, and entered the Mississippi on the 30th of that month. During the voyage south, two cases of severe continued fever and several others of a milder type appeared. On arriving at New Orleans the sick list was above the average, but contained no disease produced by climatic causes. This being about the hottest season of the year, and the ship having for a long period been employed in a cold climate, every care was taken on entering this usually sickly locality to prevent, if possible, the baneful effects climate or local influence would be likely to produce. The ship was anchored a few yards from the levée or raised bank which skirts the shores of the Mississippi, to prevent the influx of water during its annual rise. At this time of the year the outset of the river is great and the fall rapid, and foul effluvia become daily more and more perceptible from recently exposed surfaces of mud, and the outlets of sewers from this ill-drained city. The ship remained here eleven days; the temperature of the atmosphere was very high, the thermometer ranging between 88° and 92° in the shade; there was but little rain, and that occurred at night. On inquiry, it was stated that the city was very healthy, and quite free from fevers of a malignant character; but there appeared to be a general dread

* Dr. A. L. Archer.

dread of an outbreak of yellow fever (a disease proverbially rife in this locality), since it was raging epidemically at Havana, and also at Pensacola, the latter place being only some 100 miles off, on the coast line, and the communication between those places and New Orleans by trading and other vessels being more or less constant. The quarantine regulations were consequently made more than usually stringent (for an outbreak of yellow fever would prove most disastrous, as the city was at the time held by troops of the Federal army fresh from the north), and no vessel having been at the above ports, was allowed to come up the river under 30 days after arrival. A number of cases of fever did exist both among the troops and in the town, and some two or three cases were held as being very suspicious. . . . . The ship left New Orleans on the 12th of July, the crew being very healthy, and the sick list containing no febrile affections, nor indeed any case of much importance. Several cases of small ulcer produced by mosquito-bites were under treatment: these troublesome insects are proverbially large in the Mississippi, and at this season their bite is very irritating and venomous. The Landrail, which accompanied the Rinaldo to New Orleans, and left at the same time, was also in a satisfactory sanitary condition. Both ships touched at Mobile, but there was no direct communication with the shore, then steamed through the Gulf of Mexico, and anchored in Key West Harbour, Florida, on the 17th of the month. The Florida Keys or Cays consist of a large number of coral reefs and low islands, extending some 200 miles beyond the extreme of the peninsula of Florida, forming by their junction good harbours; they are more or less covered with mangrove and other tropical trees, and several of them are inhabited. During the hot season the place is visited occasionally by epidemics of yellow fever, frequently so rife all along this line of coast. To avoid proximity to the shore or the town, the Rinaldo was anchored at the mouth of the harbour. The temperature at Key West was much the same as in the Mississippi, but a strong sea breeze setting in daily, the heat was not so much felt. At this place it was found necessary to coal; a laden vessel was there for the supply of British ships, and it was reported that she had had bad fever on board. On investigation it was found that she had left Havana about eighteen days previously for Nassau, but becoming leaky, bore up for Key West; fever appeared during her passage, and the cases were aggravated (according to the master's statement) by previous excess in drink. On arriving at Key West, the vessel was placed in quarantine, and the sick men landed; one died, the others recovered. The surgeon who attended them positively asserted that they were not cases of yellow fever, and that the fatal case was one of 'bilious remittent.' The collier at this time had been given pratique, the crew she had on board was entirely a new set, so she was warped to the Rinaldo, and coal taken from her, the Landrail having been previously supplied from the same source. It was reputed that no yellow fever had appeared in the town or vicinity of Key West, and that the season had been a very healthy one. The same precautions regarding unnecessary exposure, &c., were attended to here as at New Orleans. There was no communication with the shore save by a few

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few officers, and the crew of the boat that landed them, and the men worked at the coal with well-spread awnings over them. The Rinaldo remained nearly four days in this harbour, sailing on the 21st of July, being under orders to proceed direct to the Chesapeake. The Landrail sailed about the same time for Jamaica. Up to this time both ships continued healthy, and from the date of leaving the Mississippi there was nothing added to the sick list of the Rinaldo, save cases of small phlegmonous swellings, the usual result of sudden change from a temperate to a tropical heat. The day after leaving Key West the assistant surgeon and an assistant engineer were seized with well-marked febrile symptoms, in the former very severe: neither of those officers had been on shore at Key West, nor had they been in any way exposed. The following day four other cases appeared; on the 24th seven more were added to the sick list, and so on in less numbers to the 27th, when twenty-one cases were under treatment, the febrile symptoms varying in intensity in individual cases. On its first appearance the existence of yellow fever was barely suspected, but very shortly the true genuine type began to evidence itself in two or three of the cases. Of the twenty-one that appeared, fourteen ran into true yellow fever; the remaining seven were of a milder remittent type, and more amenable to treatment. From the first the cases were isolated as much as possible from the body of the ship's company. For four days after leaving Key West, there being danger of squalls of rain, it was necessary to have the patients on the lower deck, but as soon as a parallel of latitude was reached where there was less probability of this occurrence, the ship was housed-in abaft with awnings, the cots and hammocks slung underneath them, and the isolation was as perfect as possible. As the cases of fever appeared from the first to be daily on the increase, and its malignant type soon evident, the ship's course was diverted from making the Chesapeake to Halifax, and she was run to the northward as rapidly as possible. During the passage everything was favourable to check the further progress of the affection, and to conduce to the comfort of the patients. Very fine weather was met with, and a fair wind with a smooth sea rapidly sent the ship into higher latitudes. There was no sudden change in the temperature, which would have proved highly detrimental to those already attacked; but a gradual decrease was indicated by the thermometer, which caused a marked improvement in the milder cases. No fresh case of importance appeared after the 27th of the month. The ship arrived at Halifax on the 31st. Four deaths had then occurred, and four others were in a very critical state, the remainder appeared to be doing well. All the cases were at once removed to the Pyramus hulk, which was fitted for their reception, and placed under the charge of the senior assistant surgeon of the flagship, conjointly with myself. The Rinaldo and Pyramus were placed in strict quarantine. The climate of Halifax at this time was almost everything desirable to enhance the convalescence of those in whom such a condition was possible. The weather was generally fine, and the thermometer ranging between 65° and 70°. Soon after arrival a south-east wind prevailed for two days, and the influence was most marked

marked in producing a distressing effect on the patients, but they immediately rallied on its cessation and a change to the more salubrious northerly direction. Three of the four serious cases proved fatal after removal to the Pyramus (making seven deaths in all) with the usual characteristic features of the disease. The others shortly evinced marked improvement from the salutary change of climate and appropriate diet and regimen. After arriving at Halifax several cases of fever of a mild remittent type appeared; they were sent to the Pyramus, and did well after a few days' treatment. The Rinaldo was kept in quarantine six days, when no new case of importance occurring, she was granted pratique. She was then taken to the dockyard jetty the officers and men berthed on shore, and everything moveable taken out of her. There was no collection of dirt, nor anything offensive or deleterious to be found under the tanks or in any of the places below, where it is occasionally found. The ship was battened down, fumigated with chlorine gas, and afterwards well cleaned, painted, and whitewashed before the people returned to her. In endeavouring to trace the locality from whence this outbreak of fever originated, the Mississippi was at first deemed at fault, for, although New Orleans was generally healthy, yet, as suspicious cases did exist, there was a possibility of the poison acting with greater intensity on the constitutions of men fresh from a cool temperate climate. Whatever influence the partial exposure to the emanations from the swamps and decaying vegetable matters with which this great river abounds may have exerted, it is pretty evident that the yellow fever poison was imbibed at Key West Harbour. Eleven days had elapsed between leaving New Orleans and the appearance of the first case, and although it was positively stated that no yellow fever existed at Key West during the Rinaldo's stay, the affection appeared in the small town and also among the troops in a fort a few days after she left, spreading with great rapidity and violence, and causing a large mortality. On subsequent inquiry it was ascertained that New Orleans continued free from the disease the whole of the summer. The taking coal from a vessel that had been infected with fever some short time previously must be looked upon with suspicion, and although she had but one fatal case, and that was declared not to be yellow fever, yet the vessel had been latterly cruising in notoriously sickly places, and it is possible it was thus communicated. This supposition is strengthened by the fact that two ships which coaled from her about the same time also contracted fever. The Landrail, which accompanied the Rinaldo to New Orleans and back to Key West, having coaled from this vessel proceeded to Jamaica, and on her way thither yellow fever made its appearance. Although she continued for a while in a hot climate, she had only six or seven cases and one death. The Peterel arrived at Key West the day before the Rinaldo left, coaled from the same vessel, and then left for Nassau. Yellow fever appeared in her in the course of a few days. It is worthy of notice, that in the case of the Rinaldo the men employed in the hold of the collier filling the bags, and who were almost constantly in her (save at night) during the forty hours she was lashed alongside, were, with one exception, not attacked,

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and that case was by no means a severe one. The majority attacked, and those which proved the worst cases, were officers and men berthed in the steerage and the aftermost messes of the lower deck. No palpable reason can be given for this. The ship was clean throughout, the engine-room department particularly so, and the steerage, cabins and berths around (save in bad weather) dry and well ventilated. The Rinaldo suffered much more severely than the Landrail. Both ships were constantly together, and exposed to precisely the same influences up to leaving Key West Harbour, when the Rinaldo had the great advantage of running at once to the northward, whilst the Landrail remained for a time in the tropics. This must, in a great measure, be ascribed to the unacclimated condition of the crew of the Rinaldo when compared with the crew of the Landrail, the former having been for several months in a cold and temperate climate, the latter having been employed in the West Indies."

It is evident that the surgeon of the Rinaldo was ignorant at this time of the fatal nature of the epidemic which had visited the Landrail.

Nothing could better illustrate the advantages to be derived from rigid quarantine in the prevention of the spread of yellow fever, than the history of the epidemics in these three vessels: the Landrail and Rinaldo had been for some time stationed at New Orleans during the hottest and most sickly month of the year, the thermometer in the shade ranging during their stay, between 88° and 92°; during this time the city was occupied by large bodies of Federal troops, who being chiefly from the Northern States, were altogether unacclimatised. From the great trade which exists between New Orleans and those localities in the Gulf of Mexico where yellow fever most frequently prevails, it is constantly having that pestilence imported into it. To guard against so disastrous a visitation at such a time, the Federal authorities had taken the wise precaution to institute such stringent quarantine laws that no vessel that had been near an infected port was allowed to proceed above the quarantine anchorage (which is situated about fifty miles below the city), and for thirty days no communication was allowed to be held with the shore. The wisdom of this precaution was exemplified by the fact, that although yellow fever was raging at Key West, and at Pensacola, a town only about 100 miles from the mouths of the Mississippi, it did not make its appearance in New Orleans during the whole of that year. Some cases of severe remittent fever did exist in the city, as will always be the case in such a locality in summer, but of specific yellow fever there was none.

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At Key West, on the other hand, where the season had been an unusually healthy one, and no yellow fever existed either in the town or in the vicinity, a collier barque which had been visiting infected localities, had been obliged to put in on account of her leaky condition. She had had a severe form of fever on board during her passage from Havanna it appeared, and she was consequently placed in quarantine, and the sick were landed. One died, and the others recovered; and the medical officer having asserted that the cases were not yellow fever, she was very soon allowed pratique, and a new crew placed on board of her. On the arrival of the Landrail and Rinaldo at Key West, the former vessel proceeded to coal from this barque, and on the day following that on which the vessels were placed alongside each other for that purpose, one of the new crew of the barque was seized with fever, of which he died on shore in a few days. The Rinaldo and Peterel likewise coaled from this barque, and within a few days all these vessels were visited with yellow fever. On shore, the fever immediately afterwards broke out in the small town there, and also amongst the Federal troops holding the place. It spread with great rapidity and violence, and caused a large mortality. There can be as little doubt as to the source from whence these epidemics took their origin as there can be of the reprehensible manner in which quarantine was administered at this place. Even under ordinary circumstances, where the health and lives of a community are at stake, common prudence would dictate that those under whose guardianship such important interests are placed, should, in every instance where there is the least possible doubt as to the infectious character of a disease, give the benefit of that doubt to the community; but that cases of fever of a fatal nature, occurring in a vessel which had recently visited an infected locality should be dealt with as being of a non-infectious nature, and the period of quarantine consequently abridged, if indeed quarantine was not altogether dispensed with, was as irrational as it was unjustifiable and fatal.

There were forty-one cases of yellow fever in the Marine Battalion serving in Mexico, of which ten proved fatal. Whether this can be said to represent the exact number of cases of specific yellow fever that occurred in this force is doubtful, but it is probably a very close approximation to it. They occurred amongst that detachment of the battalion which was left behind at Vera Cruz, after the main body had embarked for England, and at the time this fever made its

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appearance it was prevailing epidemically in Vera Cruz and in the French and Spanish forces.

There appear to have been nineteen cases of yellow fever in the Melpomene, of which five proved fatal; but the history of this epidemic is not given in the returns of that ship, the medical officer whose duty it was to detail it, having been unhappily, drowned. All that can be ascertained is, that the fever seems to have been received on board at Nassau, that the vessel at once started for Halifax, and that during the passage five deaths occurred, the average duration of the disease in the fatal cases being from three to four days.

Two cases of yellow fever appear in the returns of the Phæton, one of which proved fatal; both occurred during the Michaelmas quarter, when remitting fever was prevailing in the ship, and both were evidently mere aggravated forms of that fever. The following is the report of the fatal case: " . . was put on the sick list on the 22d of August, with the ordinary symptoms of tropical continued fever, which we have been made familiar with since being in the Gulf of Mexico, when, the day previous to his death, yellowness of skin, icteroid-looking conjunctivæ, wandering, cold clammy extremities, a dry red tongue disposed to brown, a quickened labouring pulse, all bespoke the brain to be implicated. The urine was examined for albumen, but none was found, and on the morning of his death, the 25th of August, off Tampico, one pint and upwards of turbid yellowish urine was drawn off by catheter." The other case is fully detailed, and presents all the features of remittent fever with severe head complication, maculæ over the abdomen and sudamina in the axilla.

The Spiteful, in which vessel there were thirty-two cases of yellow fever, six of which proved fatal, left Port Royal, Jamaica, under steam, on the 28th of August, and after a tolerably good passage, arrived at Nassau on the 5th of September, with a small sick list. Yellow fever, it would appear, was raging epidemically on shore, and a considerable number of the principal people of the place had been carried off by it. The ship anchored outside the entrance to the harbour of Nassau, but it having been intended to send her inside on the following day, to discharge provisions to the Peterel, the surgeon,* knowing the prevalence of yellow fever

* Dr. Francis W. Davis.

fever on shore, represented to the captain the propriety of avoiding the great risk that would be incurred by such a proceeding, and urged, that so far as the exigencies of the service permitted, every means should be taken to avoid exposing the ship's company "to the influence of a poison from which they suffered so fearfully last year." Although the result of this representation is not stated, it may be presumed that the ship was in consequence not taken into the harbour, and it would appear that there was a desire, as much as possible, to prevent all communication with the shore. This does not, however, appear to have been carried out very rigorously. The surgeon says, "When we arrived at Nassau, or rather the morning after we arrived, the health officer, a medical man in large practice, came on board the Spiteful; he sat with me in the wardroom for about ten minutes. He was in constant attendance on yellow fever patients on shore, and stated that he had been up all night with some bad cases. An officer of the garrison came on board the night we arrived, and remained for dinner. The only persons with whom these two gentlemen communicated were wardroom officers and the captain. A commissariat officer and the pilot were the only other persons from the shore allowed on board. The bumboat-man was almost every day alongside for an hour or two, but was not permitted to come on board."

In reporting the fatal cases that occurred on the passage from Nassau to Halifax to the Director General, the surgeon says: "On the 8th September two cases of fever presented themselves, of a mild type; on the 10th one grave case which from the severity of its onset and course declared itself a well marked case of yellow fever. On the 11th two other cases occurred of the same character. I lost no time in reporting these to the commander, and in recommending that if possible we should leave Nassau, and go northward to Halifax. The 12th was squally, so that we could not leave Cochrane's anchorage. On the morning of the 13th we proceeded under steam to a coal ship lying off the harbour, coaled ship that day and night, and started on the 14th at 9·30 a.m. On the 13th six cases of fever were put on the sick list, on the 14th six, on the 15th five, on the 17th one, on the 18th five, on the 20th one, on the 21st one, and on the 22d one, making a total of thirty-two cases. Of these one died on the 16th with black vomit, one on the 18th, one on the 19th, and two on the 21st. The fever was of an unusually severe type, setting in with vomiting, headache, and pain in the back. In the worst cases the tongue became

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became covered with a dark fur, the pulse sank, and hæmorrhage took place in the shape of black vomit and bloody discharges from the mouth, nose, and anus. The surface of the body to which blisters had been applied became of a dark blue colour, vibices and ecchymoses appeared on the parts exposed to pressure, the skin and conjunctival mucous membrane become of a dark brown or yellow colour, as if from the presence of bile or effused blood; in one case sordes accumulated on the teeth and gums; low muttering delirium, or convulsions, or a discharge of blood from the nose and mouth preceded death; the urine was albuminous or bloody, or the secretion of urine was arrested. In some the delirium, convulsions, and symptoms of cerebral congestion or excitement were more marked, in others there was no delirium, but passive hæmorrhage, fainting and death." In reference to the origin of this epidemic the surgeon says, "As to the origin of the disease I cannot say there was the slightest proof of its having been communicated to us 'ab extra.' We had almost no direct communication with the shore, and from what I know of how this ship suffered from yellow fever last year, I have no hesitation in expressing my belief that the poison must have been in the ship in a latent state, only awaiting till the conditions favourable for its spreading should arise. These conditions, atmospheric or telluric, absence of ozone, plus or minus electricity, malarious emanations, or whatever else may be their source, manifested themselves to the sensations of us all on the 7th of September." It does not appear necessary, however, to refer back to the epidemic of the previous year to account for the outbreak of yellow fever on this occasion. Considering that it prevailed so extensively on shore, that people from the shore, one of whom was known to be in constant contact with the worst cases of the disease, had been on board, that the bumboat-man was almost daily alongside for an hour or two, and if he was not permitted to go on board, that the probabilities are the men had direct communication with him in his boat, and lastly, that the captain was almost daily on shore visiting the governor on duty, and that his boat's crew consequently had frequent intercourse with the people on shore, there is not the least difficulty in arriving at the conclusion that the disease was imported into the Spiteful through one or more of these channels. On the arrival of the vessel at Halifax, ten of the worst cases of the fever were sent on board the Pyramus hulk, where one died. Three cases of fever of an ephemeral nature were added to the list shortly

shortly after her arrival, and sent to the temporary naval hospital at Halifax, but no new case of yellow fever occurred.

It is thus seen that of about 151 cases of yellow fever which occurred on board six vessels, and in the detachment of marines at Vera Cruz, forty-nine had a fatal termination. This is about the usual death-rate of this form of fever. In every instance the epidemics in these vessels can be traced to communication with infected localities. In the Jason at Sacrificios the disease was imported from the shore, where it was prevailing. In the Landrail, Peterel, and Rinaldo, the source of infection was the barque at Key West, from which they coaled. The Melpomene was at anchor at Nassau at the same time as the Spiteful. She left for Bermuda on the 8th of September, but yellow fever having broken out in the passage, she appears to have proceeded direct to Halifax instead. The fever was doubtless imported into her at Nassau, where it also was, at the same time, conveyed on board the Spiteful. The disease prevailed in the marine detachment at the time yellow fever was epidemic in Vera Cruz.

To the wise discretion displayed by the commanding officers of the various vessels in at once making for Halifax when the character of the fever on board became suspicious, may undoubtedly be attributed the gratifying result, that the disease did not spread in them to a much greater degree than it did, and that there was not in consequence a larger mortality. All experience goes to prove that the surest check to the mortality arising from yellow fever when once it has made its appearance on board ship, is reaching a cold latitude with all possible speed ; and accumulated and accumulating evidence seems to show, that while on board ship, on the one hand, yellow fever may certainly be altogether escaped by carefully avoiding those localities in which it is prevailing, it may on the other be most effectively kept at bay on shore by the stringent administration of quarantine laws.

Eruptive Fevers.—There was a single case of measles in the Orlando at Halifax. It appears to have been very slight, the patient being discharged to duty in five days. In the same vessel there were two cases of scarlatina, also probably contracted at Halifax, although no mention of their source is made in the returns of this ship.

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One case of scarlatina is returned by the Ariadne. It occurred in the person of an officer on the day after the vessel had left Quebec for Newfoundland, with a detachment of soldiers on board. Fortunately, the disease did not spread, although there was a large number of children in the vessel. The case was a mild one, only keeping the patient fourteen days on the sick list.

Diseases of the Brain and Nervous System.—There were six deaths from these diseases. Of these one occurred in the Challenger, one in the Greyhound, one in the Marine Battalion, one in the Diadem, one in the Aboukir, and one in the Melpomene.

The case in the Challenger was, as these affections frequently are, exceedingly obscure. The patient, an ordinary seamen, complained of pain in his head, and laboured under a fixed impression that there was a large worm in his stomach. He had been for some time observed to be pining and losing flesh, and his messmates stated that the only reason they could assign for his condition was that he could not be divested of the idea that worms were consuming him. Every possible means was resorted to, to procure a healthier state of mind by trying to improve his general health, but without avail. He gradually declined; his hearing and articulation failed; hectic fever set in, and he died in a low typhoid state. Unfortunately, no post-mortem examination of the body appears to have been made. In the Greyhound, the case occurred in the person of a warrant officer, whose duties exposed him much to the sun, and who seems in consequence to have been seized with a low form of inflammatory action in the brain, resulting in effusion and death.

The fatal case in the Marine Battalion occurred in the person of a private who died on board the hulk Medway at Bermuda. He had been labouring for some days under diarrhœa, at a time when enteric fever was prevalent in the brigade. The diarrhœa had been checked by astringents, but he was in a very weak state, requiring the use of stimulants such as carbonate of ammonia and wine, when he suddenly became delirious, screaming at intervals, and towards night so restless, that it was with difficulty his head was shaved. He rapidly became comatose with twitching of the muscles of the face, and he died on the evening of the day following that on which the head symptoms made their appearance. On post-mortem examination of the body, extensive inflammation of

of the membranes of the brain was found, with effusion of lymph between the convolutions, and serum under the membranes and in the ventricles. The brain itself was greatly congested. There was a very small patch of ulceration at the ileo-cæcal valve. In the Aboukir and Diadem, the deaths were occasioned by apoplexy. In the former vessel, the man, an able seaman, was found dead in his hammock. Death appeared to have taken place some hours before. On post-mortem examination, extravasation of blood on the brain, sufficient to cause death, was discovered. The attack of apoplexy was caused by excessive drinking. The case in the Diadem occurred as the ship was coming to an anchor at Port Royal, when a marine who appears to have been doing duty as ship's painter, was observed to reel and fall to the deck. When taken up he was quite insensible, and in that condition he was removed to the Royal Naval Hospital, where he died within an hour of his admission. Examination of the body after death showed a large clot of blood in the vicinity of the pons varolii, and in the crura cerebri.

The death in the Melpomene was that of an officer who fell a victim to intemperance. He died of delirium tremens.

Diseases of the Respiratory Organs.—There were 120 cases of inflammatory affections of the lungs and pleura, of which fourteen were invalided and four died. The Nile suffered more than any other ship from these affections, the forms in which they chiefly presented themselves being pneumonia or bronchitis. The majority of the cases occurred during the first two quarters of the year.

The ratio of invaliding for phthisis is slightly in excess of the previous year; but the ratio of mortality is exactly the same.

Diseases of the Organs of Circulation.—A death from rupture of a thoracic aneurism occurred in the Agamemnon in the person of a marine. He had gone to his hammock in the evening after a heavy day's work, and about two hours afterwards was found dead. He had been on the list a few days previously with catarrh, and at that time his chest was frequently examined by the stethoscope; but probably on account of the small size of the aneurism, nothing was detected which could at all lead to the belief that the heart or large vessels were diseased. On post-mortem examination of the body, a ragged, irregular opening was found in the arch of

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of the aorta, just below the origin of the brachio-cephalic, subclavian and carotid arteries.

Diseases of the Alimentary Organs.—The ratio of cases of all forms of disease coming under this head was 199·3 per 1,000 of mean force. The average ratio for the six preceding years was 181·5 Unfortunately the increase in the present year is not owing to the milder forms of disease, but to the great prevalence of dysentery in that portion of the force which was connected with the expedition to Mexico.

Dysentery.—During the six years preceding 1862, the average ratio of cases of dysentery per 1,000 of force on the station was 5·3. In 1862, it amounted to 23·5. This increase is chiefly referrible to the epidemic character which the disease assumed in the Marine Battalion. The total number of cases of dysentery connected with that force was eighty-five, of which six had a fatal termination. Sixty-nine of these cases occurred during the first quarter of the year at Vera Cruz, and the remainder when the battalion was on its passage to, and during its stay at Bermuda. The circumstances which combined to occasion this outbreak of disease have already been alluded to in the history of the fever which prevailed in the force at that time.

Diseases of the Genito-Urinary Organs.—There is a slight decrease in the ratio of all diseases coming under this head as compared with the preceding year, but of individual diseases syphilis shows a slight increase. The ships in which this disease prevailed to the greatest extent were the Hero and Orlando. In the former vessel, more than one-half of her cases were contracted at Plymouth, where she was in the beginning of the year, and in the Orlando the majority of the cases were contracted while the ship was stationed at Halifax.

A quartermaster of the Donegal died in the Naval Hospital at Bermuda of abscess of the bladder and prostate gland. He had suffered from inability to pass his urine, and there was some distention of the bladder, with accompanying irritative fever. On admission into hospital he was in a most unfavourable condition; there was retention of urine with inflammatory œdema of the scrotum. The fever became remittent in its character, and he had daily a paroxysm of the cold, hot, and sweating stages. It was ultimately found necessary to puncture the bladder above the pubis, but he died

died a few days afterwards. The following report of the post-mortem examination of the body is by the Deputy Inspector General of the hospital. "The bladder was much changed, its capacity not exceeding three-fourths of a pint. The mucous coat was dark coloured and corrugated, the muscular coat thickened generally, but most around the neck, and at the fundus, where the thickness was from one-half to three-quarters of an inch. On the right side of the fundus in the thickened coats there was a large abscess containing about eight ounces of pus, which during life formed a tumour in the right iliac fossa. A similar abscess had formed posteriorly in the thickened tissues of the bladder, and had opened by ulceration into the cavity of the peritoneum; the sacculus between the bladder and the rectum containing the escaped pus. This was doubtless the immediate cause of the intense pain in the abdomen which preceded death. The ureters and pelves of the kidneys were much dilated and full of pale urine. The kidneys were pale; the left large and bloodless; the right reduced in size, lobulated and thin in its structure. The prostate gland seemed not much enlarged, but its capsule was detached from it anteriorly. Immediately in front of the verumontanum an orifice led into a large cavity filled with fœtid pus, that opened by an oblique orifice in a large cavity along the anterior wall of the rectum, which again opened by a large orifice into which the point of the finger found its way on digital examination during life. This cavity contained a large areolar slough. Posterior to the rectum, between it and the sacrum, pus was found in small quantity. Both tunicæ vaginales were in the condition of abscesses with sloughy walls."

Under the head of Syphilis there is one death. It occurred in the person of a carpenter's mate of the Cadmus, who had been frequently on the list with ulcers on various parts of the body, and with a chronic form of tonsillitis. On the last occasion on which he was admitted to the sick list he suffered from pain along the cervical vertebræ, and difficulty of swallowing solids; he was very weak, and he laboured under aphonia. The uvula was large and pendent; both tonsils hypertrophied, and covered with a number of small greyish-coloured ulcers. The ulceration extended, and ultimately the uvula was entirely thrown off, the soft palate became implicated, and the disease extended to the palatal bones. In this condition he was sent to the Civil Hospital at Antigua, where, however, he does not appear to have improved. He was

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was ultimately invalided and sent to England, and on his arrival was admitted to Haslar Hospital, where he died. The report of his death in that establishment is as follows:—" . . . . (Syphilitic ulceration of throat, and caries of cervical vertebræ. Hæmorrhage from vertebral artery.) Invalided at Antigua on the 10th of April 1862, for syphilitic ulceration of throat and cachexia; was admitted into this hospital on the 28th of April, in an extreme state of emaciation and debility. He had been ill about four months, and had been under treatment for some time in the hospital at Antigua. The whole of the soft palate was destroyed, and the ulceration extended deeply on each side of the fauces and backwards, exposing the cervical vertebræ; but in consequence of the difficulty of opening the mouth, a minute examination could not be made. The discharge was most profuse and offensive, and he had considerable difficulty in swallowing. Treatment consisted in supporting the strength by tonics and stimulants, and in the use of various gargles, but without any effect in checking the disease. On the 10th of July the discharge was slightly streaked with blood. On the 12th of July profuse hæmorrhage took place from the throat, and he expired in about ten minutes afterwards. Post-mortem examination:—The bodies of the second and third cervical vertebræ were found to be partly destroyed by ulceration, which had extended to and opened the left vertebral artery, from which the hæmorrhage proceeded."

Rheumatism.—This disease does not appear to have been so prevalent as it was during the preceding year. In 1861 the ratio of cases per 1,000 of mean force was 88·2, while in the present year it was only 74·9. There was a fractional increase, however, in invaliding, occasioned by it.

Diseases not Classed.—Under this head a death from pyæmia is returned. It occurred in Bermuda Hospital, in the person of a carpenter's mate of the Desperate, who had been admitted on the sick list of that vessel on the 1st of November, with what appeared to be rheumatic pains in the left side, hip, and thigh, with slight constitutional disturbance, attributed to exposure and wet. Under treatment he improved till the morning of the 5th of November, when he was attacked with pain in the popliteal space so severe as to cause hysterical fits of crying, which lasted several hours, and were succeeded by wandering and incoherent talking, with heat of head. In this condition he was sent to hospital. On the 7th, effusion

effusion into the joint had taken place. He was perspiring; the face was anxious. Pulse ninety-four. He lay in a drowsy state. In the evening there was pain at the scorbiculus cordis, and dyspnœa. On the 13th diarrhœa set in. On the 18th an incision was made into the outer side of the knee-joint, and exit given to some blood-stained pus. Prostration, which had been progressing previous to this time, now became more marked, and he died on the morning of the 19th. On examination of the body after death the appearances are thus reported by the Deputy Inspector General :—" Body, emaciated, in rigor mortis. Left knee-joint disorganised, the synovial membrane being hyperæmic, with fringes, and pulpified; cavity contained thin unhealthy pus, mixed with blood. Cartilages softened, without erosion. A collection of pus to the extent of ten ounces was found in the upper half of the popliteal space. The cavity communicated with that of the synovial membrane; and the lower fifth of femur exhibited the lesions of osteitis, being posteriorly necrosed and entirely divested of its periosteum, which, at the sides and front was thickened and dark-coloured by active inflammation. No phlebitis detected. Cranium :—On removing the calvanium the meninges were found to be in a hyperænic condition; arachnoid dull and opalescent; arachnoid and subarachnoid fluid slightly increased in quantity. Meninges on either side of falx cerebri agglutinated by effused lymph. Brain :—Puncta vasculosa larger and more numerous than in health. Thorax :—Lungs attached to parietes by recent adhesions, congested. The left, free from purulent deposit. A large abscess, containing about six ounces of thin unhealthy curdy pus, was found in the lower lobe of the right lung. Heart :—Of normal appearance externally, but, when opened, the mitral valve was found roughened on the auricular surface, and much thickened. The other valves were healthy. Abdomen :—The liver was enlarged and congested, without purulent deposit. Other viscera healthy."

A case of purpura appears in the Returns of the Petrel. It occurred in the gun-room steward, who had been exposed a good deal to the sun, and who, on presenting himself to the medical officer, complained of giddiness, with slight feverishness. There was a dark prominent tubercle, like an unhealthy boil, on his forehead. Two days afterwards bleeding took place from this tubercle, and also from a spot over the joint of one of his fingers. On the following day there was ecchymosis around the left eye, and a dark livid appearance of the elbows, with great mental depression. He was removed to the

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the Civil Hospital at Nassau, and died there on the following day, being the fifth day from that on which he was placed on the sick list. There was no examination of the body after death.

Wounds, Injuries, &c.—Eight men were killed by falling from aloft, and one man sustained a fatal fracture of the spine by a man falling on him; a man fell out of his hammock fracturing his skull; and a marine died from the effects of a fall into a boat alongside, by which one of his kidneys was severely injured. There were two deaths from wounds by fire-arms; in one case the fatal event was occasioned by a pistol shot through the head received in a brawl, and the other accidentally by a gunshot wound while at target practice. One man was accidentally poisoned.

One officer, fourteen seamen and three marines were drowned; the officer was last seen on deck at a time when the ship was rolling heavily, and it was supposed that by some accident he had fallen overboard. Of the marines one fell overboard, one was missing, and is supposed to have fallen overboard, and one was drowned while bathing; six seamen were drowned by falling overboard; one by falling through the rudder-hole of a hulk; one whilst bathing; one who was missing is supposed to have fallen overboard; one was drowned alongside the ship; one by the swamping of a boat at the Rio Grande del Norte; one by being capsized in a boat; one whilst heaving the lead was washed overboard by a sea striking him and carrying away the breast-rope; one was washed overboard while securing the anchor; and one while drunk jumped out of the boat and disappeared so suddenly that it is supposed he was taken down by sharks.

Two seamen committed suicide; one by cutting his throat, and the other by jumping overboard. A seaman of the Liffey, whilst being brought under the influence of chloroform previous to having an operation performed on him in Plymouth Hospital, suddenly expired after making one or two inhalations.

The total mortality of the year was 205; thirty-five deaths being from wounds and injuries of various kinds and from drowning, and 170 from disease; the former being in the ratio of 3·5, and the latter 16·7 per 1,000 of mean force, a great decrease as compared with the preceding year, when the ratio of deaths per 1,000 from wounds, injuries, and drowning was 5·8, and from disease 36·2.

Invalided.—

Invalided.—Sixteen men were invalided for the sequelæ of fever, twenty-seven for affections of the brain and nervous system, eighteen of these being for epilepsy, sixty-nine for diseases of the organs of respiration, of whom fifty-five were for symptoms of phthisis. Twenty-seven men were invalided for diseases of the heart and blood vessels; twenty-eight for affections of the stomach and alimentary canal; three for inflammation of the liver; twenty six for diseases connected with the genito-urinary organs, one half of these being for syphilis; thirty-one for rheumatism; seven for diseases of the bones and joints; eight for affections of the special senses; forty-three for eruptions, boils, abscesses and ulcers; eleven for dyspepsia and debility; one for dropsy; twenty-five from wounds and injuries, and six for hernia; making in all 328, or in the ratio of 32·3 per 1,000 of mean force, a decrease of 4·2 per 1,000 as compared with the preceding year.

TABLE, No. 1.

SHOWING the Number of CASES of all DISEASES and INJURIES, and the Number INVALIDED and DEAD, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	1,236	121·9	14	1·3	49	4·8
Yellow Fever	151	14·8	2	·1	49	4·8
Intermittent Fever	222	21·9	—	—	—	—
Measles	4	·3	—	—	—	—
Scarlatina	3	·2	—	—	—	—
Disease of the Brain	2	·1	1		3	·2
Apoplexy	25	2·4			2	·1
Epilepsy	37	3·6	18	1.7	—	—
Paralysis	12	1·1	3	·2	—	—
Insanity	7	·6	2	·1	—	—
Delirium Tremens	39	3·8			1	—
Headache, &c.	107	10·5	3	·2	—	—
Inflammation of the Lungs and Pleura	120	11·8	14	1·3	4	·3
Phthisis and Hæmoptysis	58	5·7	55	5·4	22	2·1
Influenza and Catarrh	1,864	183·8	—	—	—	—
Cynanche	383	37·7	—	—	—	—
Asthma	6	·5	—	—	—	—
Functional and Organic Disease of the Heart	67	6·6	23	2·2	10	·9
Hæmorrhoids	38	3·7	2	·1	—	—
Varix	3	.2	2	·1	—	—
Thoracic Aneurism					1	—
Inflammation of the Stomach and Bowels	9	·8	3	·2	6	·5
Dysentery	249	23·5	15	1·4	11	1·
Diarrhœa	1,486	146·6	10	·9	—	—
Cholera	19	1·8	—	—	—	—
Constipation and Colic	270	26·6	—	—	—	—
Inflammation of the Liver	23	2·2	3	·2	2	·1
Jaundice	22	2·1	—	—	—	—
Splenitis	1	—	—	—	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	10	·9	2	·1	1	—
Syphilis	368	36·3	13	1·2	1	—
Gonorrhœa	79	7·7	—	—	—	—
Orchitis	135	13·3	3	·2	—	—
Stricture	40	3·9	7	·6	—	—
Incontinence of Urine, &c.	6	·5	1	—	—	—
Rheumatism	760	74·9	31	3·	—	—
Gout	4	·3	—	—	—	—
Disease of the Bones and Joints	76	7·4	7	·6	—	—
Ophthalmia	124	11·1	2	·1	—	—
Amaurosis and Cataract	9	·8	3	·2	—	—
Otitis and Deafness	59	5·8	3	·2	—	—
Erysipelas	40	3·9	3	·2	—	—
Scrofula	16	1·5	6	·5	1	—
Bubo (*Symp.*)	90	8·8	—	—	—	—
Phlegmon and Abscess	3,019	297·8	10	·9	3	·2
Ulcer	1,167	114·1	24	2·3	1	—
Psora	81	7·9	—	—	—	—
Eruptions, &c.	179	17·6	—	—	—	—
Pyæmia	-	-	—	-	1	—
Dyspepsia and Debility	571	56·3	11	1·	1	—
Scurvy	3	·2	—	—	—	—
Dropsy	14	1·3	1	—	—	—
Worms	30	3·	—	—	—	—
Purpura	1	-	-	-	1	—
Cancer	1	—	—	—	—	—
Wounds and Injuries	3,043	300·2	25	2·4	13	1·2
Burns and Scalds	140	13·8	—	—	—	—
Hernia	12	1·1	6	·5	—	—
Drowned	-	-	-	-	18	1·7
Asphyxia	-	-	-	-	1	—
Poison	3	·2	-	-	1	—
Suicide	-	-	-	-	2	·1
TOTAL	16,543	1632·2	328	32·3	205	20·2

Table, No. 2.

Showing the Number of Days' Sickness from each Disease, and from Injuries, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	14,384	2,739	17,123	46·9	4·6
Yellow Fever	1,087	492	1,579	4·3	·4
Intermittent Fever	1,735	120	1,855	5·	·4
Small-pox	22	- -	22	—	—
Measles	42	16	58	—	—
Scarlatina	22	24	46	—	—
Disease of the Brain	7	- -	7	—	—
Apoplexy	195	- -	195	·5	—
Epilepsy	331	87	418	1·1	·1
Paralysis	236	66	302	·8	—
Insanity	132	55	187	·5	—
Delirium Tremens	300	44	344	·9	—
Headache, &c.	110	- -	110	·3	—
Inflammation of the Lungs and Pleura	2,696	1,785	4,481	12·2	1·2
Phthisis and Hæmoptysis	1,230	678	1,908	5·2	·4
Influenza and Catarrh	13,211	121	13,332	36·5	3·6
Cynanche	3,431	43	3,474	9·5	·9
Asthma	33	10	43	—	—
Functional and Organic Disease of the Heart	1,233	108	1,341	3·6	·3
Hæmorrhoids	- -	368	368	1·	—
Varix	- -	111	111	·3	—
Inflammation of the Stomach and Bowels	103	103	206	·5	—
Dysentery	4,433	1,410	5,843	16·	1·5
Diarrhœa	9,310	605	9,915	27·1	2·6
Colera	72	17	89	—	—
Constipation and Colic	1,251	- -	1,251	3·4	·3
Inflammation of the Liver	398	54	452	1·2	·1
Jaundice	449	- -	449	1·2	·1
Splenitis	21	- -	21	—	—

TABLE, No. 2.—Showing the Number of Days' Sickness from each Disease, &c.—*cont^d.*

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	173	22	195	·5	—
Syphilis	11,017	4,165	15,182	41·5	4·
Gonorrhœa	1,429	39	1,468	4·	·3
Orchitis	2,376	423	2,799	7·6	·7
Stricture	730	226	956	2·6	·2
Incontinence of Urine, &c.	84	44	128	·3	—
Rheumatism	10,053	1,174	11,227	30·7	3·
Gout	117	-	117	·3	—
Disease of the Bones and Joints	1,271	422	1,693	4·6	·4
Ophthalmia	1,678	218	1,896	5·1	·4
Amaurosis and Cataract	128	-	128	·3	—
Otitis and Deafness	561	21	582	1·5	·1
Erysipelas	531	356	887	2·4	·2
Scrofula	402	79	481	1·3	·1
Bubo (*Symp.*)	2,213	249	2,462	6·7	·6
Phlegmon and Abscess	27,398	1,269	28,667	78·5	7·8
Ulcer	23,718	1,468	25,186	69·	6·8
Psora	823	-	823	2·2	·2
Eruptions, &c.	3,169	348	3,517	9·6	·9
Dyspepsia and Debility	4,381	420	4,801	13·1	1·2
Scurvy	47	22	69	—	—
Dropsy	202	32	234	·6	·5
Worms	-	53	53	—	—
Purpura	5	-	5	—	—
Cancer	6	-	6	—	—
Wounds and Injuries	34,535	2,031	36,566	100·	9·8
Burns and Scalds	1,923	2	1,925	5·2	·5
Hernia	90	1	91	—	—
Poison	31	-	31	—	—
TOTAL	186,065	22,140	208,205	570·3	56·2

TABLE, No. 3. - - - - - - - - -

SHOWING the Number INVALIDED from each Ship employed - - -

CAUSE of INVALIDING.	Aboukir.	Agamemnon.	Ariadne.	Barracouta.	Bulldog.	Cadmus.	Challenger.	Cygnet.	Desperate.	Diadem.	Donegal.	Greyhound.	Hero.	Hydra.	Imaum.
Continued and Remittent Fever - - - -	1	–	–	1	1	–	–	1	–	–	–	–	–	–	–
Yellow Fever - - -	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Disease of the Brain - -	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Epilepsy - - - -	–	1	2	–	–	–	–	–	–	–	–	1	1	1	–
Insanity - - - -	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–
Paralysis - - - -	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–
Neuralgia, &c. - - -	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Lungs and Pleura - - -	1	–	–	1	–	–	–	–	–	–	–	1	1	–	–
Phthisis and Hæmoptysis -	8	2	1	–	–	3	3	1	–	1	6	–	3	1	2
Disease of the Heart - -	–	2	1	–	–	–	2	–	–	–	–	1	2	3	–
Hæmorrhoids - - -	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–
Varix - - - -	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–
Disease of the Bowels -	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dysentery - - -	–	–	3	2	–	3	1	–	–	–	–	–	1	–	–
Diarrhœa - - - -	–	1	–	–	–	–	–	–	–	–	1	–	–	–	1
Disease of the Liver - -	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Disease of the Kidneys -	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–
Syphilis - - - -	1	–	–	1	1	–	–	1	–	–	1	–	1	–	1
Orchitis - - - -	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
Stricture - - - -	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–
Incontinence of Urine -	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Rheumatism - - -	–	4	3	–	–	–	–	–	–	–	3	2	–	–	1
Disease of the Bones and Joints - - - -	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–
Ophthalmia - - -	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Amaurosis and Cataract -	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–
Otitis and Deafness - -	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–
Erysipelas - - -	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–
Scrofula - - - -	–	1	–	–	1	–	–	–	–	–	1	–	1	–	–
Phlegmon and Abscess -	–	–	1	–	–	–	–	1	–	–	1	–	–	–	–
Ulcer - - - -	–	–	3	1	–	2	2	–	2	–	–	1	1	–	–
Dyspepsia and Debility -	–	–	2	1	–	–	–	–	–	1	–	1	–	–	–
Dropsy - - - -	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Wounds and Injuries - -	–	–	3	1	1	3	–	–	–	–	1	–	–	–	–
Hernia - - - -	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–
TOTAL - - -	11	13	23	8	4	13	11	4	2	2	16	8	14	6	5

- - - - - - - - TABLE, No. 3.

- - - - on the NORTH AMERICAN and WEST INDIA Station.

Immortalité.	Jason.	Liffey.	Marine Battalion in Mexico.	Medea.	Melpomene.	Mersey.	Nile.	Orlando.	Petrel.	Phaeton.	Plover.	Racer.	Rinaldo.	Sanspareil.	Spiteful.	Steady.	Styx.	Terror.	Vesuvius.	TOTAL.
–	–	–	–	–	–	1	–	–	–	7	–	–	–	–	2	–	–	–	–	14
–	–	–	–	–	1	–	–	–	–	1	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
1	1	1	1	–	1	–	–	1	–	3	–	–	–	1	–	–	1	1	–	18
–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	2
–	–	–	–	–	–	–	1	–	–	1	–	–	–	–	–	–	–	–	–	3
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1	–	3
2	–	–	–	1	1	–	–	4	–	1	–	–	–	–	–	–	–	1	1	14
3	1	–	3	1	4	1	–	3	–	1	1	1	–	1	1	–	2	–	1	55
1	1	–	3	–	–	–	1	1	1	1	1	–	–	–	1	–	–	1	–	23
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	2
–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	1	–	–	–	–	2	–	–	–	–	–	–	–	–	–	3
–	1	–	1	–	–	–	–	1	–	1	–	–	–	–	1	–	–	–	–	15
–	–	–	4	–	–	–	–	–	–	2	–	–	–	–	1	–	–	–	–	10
1	–	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	3
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	2
–	1	–	–	1	–	–	–	–	1	–	–	–	–	1	–	–	–	–	2	13
–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	3
–	1	–	1	–	1	–	–	1	–	1	–	–	–	–	–	–	–	–	–	7
–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	1
–	1	2	–	2	1	–	–	1	1	5	1	–	1	–	2	–	1	–	–	31
1	–	–	2	–	–	–	–	2	–	1	–	–	–	–	–	–	–	–	–	7
–	1	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	3
1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
–	–	–	–	–	1	–	–	–	–	1	–	–	–	–	–	–	–	–	–	3
–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	6
–	–	–	1	–	1	1	–	1	–	2	–	–	–	–	–	–	–	–	1	10
2	1	–	–	1	–	–	2	–	1	3	–	–	1	–	1	–	–	–	–	24
–	1	–	1	–	–	–	–	–	–	1	–	–	–	–	1	1	–	1	–	11
–	–	–	–	–	–	–	–	–	–		–	–	–	1	–	–	–	–	–	1
2	1	–	1	–	2	1	–	1	1	2	–	–	1	4	–	–	–	–	–	25
2	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–	6
16	11	3	19	7	15	4	5	18	6	39	3	2	3	8	11	1	5	6	6	328

TABLE, No. 4.

SHOWING the Number of DEATHS in each Ship employed

CAUSE of DEATH.	Aboukir.	Aboukir.	Agamemnon.	Ariadne.	Barracouta.	Bulldog.	Cadmus.	Challenger.	Desperate.	Diadem.	Donegal.	Greyhound.	Hero.	Immortalité.	Jason.
Continued and Remittent Fever	–	1	–	–	1	–	–	1	–	–	2	–	–	1	–
Yellow Fever	–	–	–	–	–	–	–	–	–	–	–	–	–	2	2
Disease of the Brain	–	–	–	–	–	–	–	1	–	–	–	1	–	–	–
Apoplexy	1	–	–	–	–	–	–	–	–	1	–	–	–	–	–
Delirium Tremens	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Lungs and Pleura	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
Phthisis and Hæmoptysis	5	–	1	–	–	–	1	–	–	1	–	1	1	1	1
Disease of the Heart	1	–	2	1	–	–	–	1	1	–	–	–	–	–	–
Thoracic Aneurism	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Disease of the Stomach and Bowels	–	–	1	1	–	–	–	–	–	–	–	–	–	1	–
Dysentery	–	–	–	1	1	–	1	1	–	–	–	–	–	–	–
Disease of the Liver	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–
Disease of the Bladder	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–
Syphilis	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–
Scrofula	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Abscess	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–
Pyæmia	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–
Ulcer	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Purpura	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Asphyxia from Chloroform	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Poison	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Debility	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Wounds and Injuries	1	–	–	2	–	–	1	1	–	–	–	–	–	1	–
Drowned	–	–	–	1	–	–	1	–	–	–	–	–	2	–	–
Suicide	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TOTAL	9	1	5	6	3	1	5	5	2	2	5	2	3	6	3

- - - - - - - TABLE, No. 4.

- - - on the NORTH AMERICAN and WEST INDIA Station.

Landrail.	Liffey.	Marine Battalion in Mexico.	Melpomene.	Mersey.	Nile.	Nimble.	Orlando.	Petrel.	Phaeton.	Plover.	Racer.	Rinaldo.	Sansparcil.	Spiteful.	Styx.	Terror.	TOTAL.
–	–	36	–	–	1	–	2	–	2	1	–	1	–	–	–	–	49
7	–	10	5	–	–	–	–	9	1	–	–	7	–	6	–	–	49
–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	4
–	–	–	3	1	–	–	2	–	–	1	1	–	2	–	–	–	22
–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	2	10
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
1	–	–	1	–	–	–	1	–	–	1	–	–	–	–	–	–	6
–	–	6	–	–	–	–	1	–	–	–	–	–	–	–	–	–	11
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	2
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1	1
–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1	3
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1
–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	2	–	2	–	–	–	–	–	2	1	–	–	13
–	1	–	2	1	–	1	2	–	3	–	1	–	–	–	2	1	18
–	–	–	–	–	[a]1	–	–	–	–	–	–	–	–	–	[b]1	–	2
8	3	54	15	3	4	1	10	10	6	3	2	8	4	7	4	4	205

a. Cutting his throat.

b. Drowning himself.

Table, No. 5.

Showing the Names of the Ships; the Average Complements and the Mean Force; the Total Number of Cases in each Ship; the Total Number of Days' Sickness on Board, and the Average Number of Men Sick Daily.

P. O. Paid off. C. Commissioned. D. Returns defective. S. C. Station changed.

NAME of SHIP.	Number of Guns, Horse Power, &c.	Period.	Average Complement.	Mean Force of each Ship.	Number of Cases.	Number of Days' Sickness on Board.	Average Number of Men Daily Sick.	Ratio per 1,000 of Mean Force of each Ship.	Number discharged to Hospital.
Aboukir - P. O.	86 Sc. - 400	8 mo.	850	565	452	6,103	16·7	29·5	20
Aboukir - C.	86 Sc. - 400	4 mo.	345	115	97	637	1·7	14·7	25
Agamemnon - P. O.	89 Sc. - 600	9 mo.	915	685	950	13,845	37·9	55·3	19
Ariadne - -	26 Sc. - 800	year	480	480	816	11,390	31·2	65·	53
Barracouta - D.	6 P. W. 300	11 mo.	185	170	255	2,711	7·4	43·5	12
Bulldog - P. O.	6 P. W. 500	7 mo.	165	95	236	2,397	6·5	38·2	12
Cadmus - -	21 Sc. - 400	year	275	275	565	5,540	15·1	54·9	13
Challenger -	22 Sc. - 400	year	305	305	622	6,052	16·5	54·1	14
Cygnet - -	5 Sc. - 80	year	60	60	139	1,252	3·4	56·6	13
Desperate -	7 Sc. - 400	year	165	165	336	2,684	7·3	44·2	9
Diadem - P. O.	32 Sc. - 800	3 mo.	530	130	154	1,620	4·4	33·8	5
Donegal - P. O.	99 Sc. - 800	5 mo.	900	375	538	6,471	17·7	47·1	42
Greyhound - -	17 Sc. - 200	year	165	165	390	3,283	8·9	53·9	11
Hero - P. O.	89 Sc. - 600	11 mo.	885	810	903	11,313	30·9	38·1	53
Hydra - P. O.	6 P. W. 220	7 mo.	125	75	130	2,264	6·2	82·6	2
Imaum - P. O.	18 - -	8 mo.	130	85	113	848	2·3	27·	8
Immortalité - -	51 Sc. - 600	year	570	570	921	9,925	27·1	46·7	10
Jason - - -	21 Sc. - 400	year	260	260	696	6,970	19·	43·3	12
Landrail - - -	5 Sc. - 80	year	65	65	113	1,081	2·9	44·6	11
Liffey - P. O.	39 Sc. - 600	6 mo.	530	265	301	4,017	11·	41·5	1
Marine Battalion in Mexico - P. O.	- - -	5 mo.	700	290	882	7,963	21·8	75·1	260
Medea - - D.	6 P. W. 350	4 mo.	135	45	72	885	2·4	53·3	3
Melpomene - -	51 Sc. - 600	year	520	520	853	12,545	34·3	65·9	29
Mersey - P. O.	40 Sc. 1,000	7 mo.	650	380	539	5,918	16·2	42·6	8
Nile - - -	78 Sc. - 500	year	855	855	921	10,419	28·5	33·3	15
Nimble - - -	5 Sc. - 80	year	65	65	61	552	1·5	23·	1
Orlando - - -	46 Sc. 1,000	year	600	600	1,152	14,927	40·8	69·7	46
Peterel - - C.	11 Sc. - 150	9 mo.	130	95	218	1,992	5·4	56·8	21
Phaeton - -	39 Sc. - 400	year	500	500	1,141	11,124	30·4	60·8	20
Plover - - -	5 Sc. - 80	year	75	75	247	2,084	5·7	76·	38
Racer - P. O.	11 Sc. - 150	11 mo.	125	115	226	1,445	3·9	33·9	6
Rinaldo - - -	17 Sc. - 200	year	170	170	292	3,080	8·4	49·4	12
Spiteful - - -	6 P. W. 280	year	180	180	275	2,332	6·3	35·	19
Steady - - -	5 Sc. - 80	year	60	60	108	1,202	3·2	53·3	8
Styx - - C.	6 P. W. 280	6 mo.	160	80	276	2,523	6·9	86·3	10
Terror - - D.	16 Sc. - 200	9 mo.	170	125	143	826	2·2	17·6	25
Vesuvius - C.	6 P. W. 280	6 mo.	175	85	133	1,170	3·2	37·6	7
Sanspareil - P. O.	70 Sc. - 400	5 mo.	435	180	277	3,171	8·6	47·7	10

Table, No. 6.

Showing the Number of Cases of all Diseases and Injuries in each Ship employed on the North American and West India Station.

DISEASE OR INJURY.	Aboukir.	Aboukir.	Agamemnon.	Ariadne.	Barracouta.	Bulldog.	Cadmus.	Challenger.	Cygnet.	Desperate.	Diadem.	Donegal.	Greyhound.	Hero.	Hydra.	Imaum.	Immortalité.	Jason.	Landrail.
Continued and Remittent Fever	1	34	1	178	1	25	2	43	16	–	–	13	8	2	4	7	51	92	–
Yellow Fever	–	–	–	3	–	–	–	–	–	–	–	–	–	–	–	–	12	4	10
Intermittent Fever	–	–	3	4	6	2	14	11	9	9	–	5	1	–	–	–	3	–	2
Scarlatina	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Measles	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–
Inflammation of the Brain	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–
Apoplexy	1	–	–	a11	–	–	2	–	1	–	1	–	–	–	–	–	a 2	–	–
Epilepsy	–	1	6	2	–	1	3	1	–	–	–	1	1	6	1	–	1	1	–
Insanity	–	–	–	–	–	–	1	–	–	–	1	–	–	–	–	–	–	–	–
Delirium Tremens	3	1	3	4	–	1	3	2	–	–	–	2	–	–	–	–	3	–	–
Paralysis	2	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–
Headache, &c.	1	–	–	10	11	5	9	9	2	–	–	–	3	2	–	–	6	1	2
Inflammation of the Lungs and Pleura	–	–	5	4	4	–	2	1	2	3	1	–	3	6	4	1	9	1	1
Phthisis and Hæmoptysis	3	1	3	1	1	–	3	4	1	–	1	4	–	3	–	2	3	5	–
Catarrh	110	35	263	42	25	5	103	27	12	105	23	52	34	127	24	35	62	131	23
Cynanche	–	–	37	30	2	2	16	3	4	3	9	4	1	49	8	1	42	2	–
Asthma	–	–	1	–	–	–	–	–	–	–	2	–	1	–	–	–	–	–	–
Functional and Organic Disease of the Heart	1	–	8	6	1	–	2	2	–	–	1	–	2	2	4	–	3	3	–
Hæmorrhoids	–	–	2	3	–	–	–	3	–	3	1	2	2	3	–	–	–	1	–
Varix	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Stomach and Bowels	b 1	–	1	1	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1
Dysentery	–	–	–	32	15	1	16	18	–	–	–	19	–	1	–	–	–	6	–
Diarrhœa	22	1	52	18	29	10	38	154	8	42	3	62	21	29	3	3	64	76	6
Cholera	–	–	–	–	–	–	–	1	–	–	–	–	–	7	–	–	–	–	–
Constipation and Colic	1	–	2	15	2	–	2	18	5	6	2	5	20	5	–	–	13	12	7
Inflammation of the Liver	1	–	1	–	–	1	5	2	–	–	–	–	–	–	–	–	4	–	–
Jaundice	–	–	5	1	–	–	2	–	–	–	–	1	–	2	–	–	–	4	–
Splenitis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–
Inflammation of the Kidneys and Bladder	–	–	–	–	1	–	–	–	–	–	–	–	–	1	–	–	–	–	–
Syphilis	17	–	9	16	–	4	13	17	4	–	1	11	5	48	4	8	14	10	1
Gonorrhœa	–	–	2	1	1	1	8	7	–	3	1	3	–	8	1	–	2	4	1
Orchitis	5	2	13	8	3	1	3	3	2	–	3	5	7	8	–	1	4	7	2
Stricture	1	–	2	1	–	1	–	5	–	–	–	2	–	5	–	–	1	2	–
Incontinence of Urine, &c.	–	–	–	–	–	–	–	1	–	–	–	–	–	1	–	–	1	–	–
Rheumatism	13	2	49	37	12	13	57	19	14	6	3	23	20	52	3	9	45	29	–
Gout	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–
Disease of the Bones and Joints	–	–	–	–	1	1	1	4	2	–	1	2	–	5	1	–	3	4	–
Inflammation of the Eyes	7	1	14	3	1	3	4	1	–	–	1	2	3	10	4	1	7	2	–
Amaurosis and Cataract	2	–	–	–	–	–	–	2	–	1	–	–	–	–	–	–	–	–	–
Otitis and Deafness	–	–	2	2	1	5	–	–	1	–	–	1	6	6	–	1	1	2	1
Erysipelas	–	–	1	5	1	–	–	–	–	–	4	2	2	3	–	–	2	–	–
Scrofula	–	–	–	–	–	1	–	–	–	–	–	1	–	3	–	–	–	–	–
Bubo (*Symp.*)	–	–	6	–	1	–	5	3	4	–	3	2	3	7	–	–	6	–	1
Phlegmon and Abscess	109	–	174	148	57	49	68	78	20	40	29	131	86	167	15	8	282	114	17
Ulcer	32	5	41	55	25	19	25	74	9	19	8	49	27	83	4	6	45	37	13
Psora	8	–	–	–	1	1	3	–	–	–	1	2	2	1	1	–	4	–	–
Eruptions, &c.	1	–	3	2	2	2	2	2	2	4	2	7	15	30	2	–	15	5	1
Dyspepsia and Debility	15	4	35	15	8	16	17	29	2	17	5	13	22	38	4	7	13	39	14
Dropsy	–	–	–	1	–	–	–	1	–	–	1	–	–	–	–	–	–	1	–
Worms	–	–	–	1	–	–	–	–	–	–	1	–	–	2	–	–	–	1	–
Wounds and Injuries	94	10	204	106	41	63	133	70	18	69	38	99	91	173	42	23	191	92	10
Burns and Scalds	–	–	2	17	1	3	3	7	1	4	7	10	3	6	1	–	3	7	–
Hernia	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	2	–	–
Poison	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–
Cancer	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Purpura	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Scurvy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TOTAL	452	97	950	816	255	236	565	622	139	336	154	538	390	903	130	113	921	696	113

continued on page 122.

a Coup de Soleil. *b* Tabes mesenterica.

TABLE, No. 6.—Showing the Number of Cases of all Diseases and Injuries, &c.—*continued.*

DISEASE OR INJURY.	Liffey.	Marine Battalion in Mexico.	Medea.	Melpomene.	Mersey.	Nile.	Nimble.	Orlando.	Peterel.	Phaeton.	Plover.	Racer.	Rinaldo.	Sanspareil.	Spiteful.	Steady.	Styx.	Terror.	Vesuvius.	TOTAL.
Continued and Remittent Fever	11	130	1	11	34	29	–	181	11	202	75	8	19	9	20	3	7	7	–	1,236
Yellow Fever	–	41	–	19	–	–	–	–	14	2	–	–	14	–	32	–	–	–	–	151
Intermittent Fever	–	30	3	1	–	–	–	43	14	5	8	15	–	6	4	2	20	–	2	222
Scarlatina	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	3
Measles	–	1	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	4
Inflammation of the Brain	–	–	–	–	–	–	–	–	–	–	a 1	–	–	–	–	–	–	–	–	2
Apoplexy	–	–	–	–	–	–	–	–	–	b 2	–	–	–	b 2	–	–	b 3	–	–	25
Epilepsy	3	–	–	1	–	–	–	1	–	2	–	–	1	1	–	–	1	2	–	37
Insanity	1	2	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	7
Delirium Tremens	2	–	1	1	1	6	–	–	–	–	4	–	1	–	–	–	1	–	–	39
Paralysis	–	1	–	–	–	2	–	2	1	1	–	–	–	–	–	–	1	–	–	12
Headache, &c.	1	14	–	3	1	3	–	–	–	2	5	4	–	1	8	–	1	1	2	107
Inflammation of the Lungs and Pleura	1	1	2	7	4	31	–	7	1	5	–	2	1	4	4	–	2	–	1	120
Phthisis and Hæmoptysis	1	3	1	2	2	–	1	4	1	2	–	1	1	1	2	–	1	–	–	58
Catarrh	59	21	9	113	43	111	9	64	10	41	6	18	59	16	23	3	7	4	10	1,864
Cynanche	12	–	–	17	10	21	1	40	4	24	1	9	4	9	5	3	3	4	3	383
Asthma	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	6
Functional and Organic Disease of the Heart	2	3	–	1	2	4	–	2	–	3	–	5	–	4	2	–	3	1	–	67
Hæmorrhoids	4	1	–	2	–	1	–	4	–	2	–	–	–	–	1	–	–	2	1	38
Varix	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
Inflammation of the Stomach and Bowels	–	–	–	–	–	–	–	1	–	1	1	–	–	–	–	–	1	–	–	9
Dysentery	1	85	–	–	13	–	–	10	1	–	1	–	–	13	1	2	–	14	–	249
Diarrhœa	11	323	1	54	66	41	14	39	16	101	23	14	29	38	9	12	16	4	4	1,486
Cholera	–	–	–	–	1	–	–	–	–	–	1	–	1	8	–	–	–	–	–	19
Constipation and Colic	1	13	3	7	7	20	–	14	1	40	–	7	2	18	5	3	13	1	–	270
Inflammation of the Liver	–	–	–	–	–	–	–	3	–	2	–	–	–	–	–	–	4	–	–	23
Jaundice	1	–	–	1	–	1	–	–	–	1	–	1	–	1	–	–	–	–	1	22
Splenitis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Inflammation of the Kidneys and Bladder	–	–	–	–	1	1	–	–	1	–	–	–	–	–	2	1	2	1	–	10
Syphilis	1	8	4	23	–	25	–	53	9	15	4	1	6	5	4	4	7	7	10	868
Gonorrhœa	–	–	–	13	1	2	1	2	–	6	–	–	2	–	4	1	1	2	1	79
Orchitis	4	–	–	7	2	14	1	9	3	7	4	1	1	–	4	–	–	–	1	135
Stricture	–	–	–	6	1	2	–	5	–	3	–	–	–	–	1	–	1	1	–	40
Incontinence of Urine, &c.	–	–	–	–	–	–	–	–	–	3	–	–	–	–	–	–	–	–	–	6
Rheumatism	17	25	8	22	21	45	2	42	7	62	10	26	8	12	18	8	9	2	10	760
Gout	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	4
Disease of the Bones and Joints	–	–	–	2	–	15	–	7	2	13	4	1	2	1	2	1	1	–	–	76
Inflammation of the Eyes	1	2	2	3	5	6	–	16	3	11	1	3	–	2	2	1	2	–	–	124
Amaurosis and Cataract	–	–	–	–	–	–	–	2	–	2	–	–	–	–	–	–	–	–	–	9
Otitis and Deafness	6	–	1	3	4	–	–	2	–	5	–	3	–	–	2	–	4	–	–	59
Erysipelas	–	–	–	2	–	–	–	4	–	7	3	1	–	1	–	–	1	1	–	40
Scrofula	–	–	–	–	–	2	–	4	2	2	–	1	–	–	–	–	–	–	–	16
Bubo (*Symp.*)	3	2	–	1	1	6	3	4	1	14	2	1	2	–	–	3	2	2	2	90
Phlegmon and Abscess	73	48	9	152	102	164	10	256	49	188	37	41	46	50	45	25	65	32	35	3,019
Ulcer	10	34	8	106	64	47	4	76	11	105	1	3	15	13	9	13	29	26	12	1,167
Psora	–	3	–	1	–	1	–	37	1	4	1	–	–	1	–	–	–	–	8	81
Eruptions, &c.	–	2	–	9	7	6	–	9	1	17	1	2	8	1	2	3	10	3	1	179
Dyspepsia and Debility	12	11	6	23	14	46	7	9	14	21	37	8	6	4	23	3	5	3	6	571
Dropsy	–	–	–	–	–	1	–	1	2	1	–	–	–	–	–	–	4	–	1	14
Worms	–	–	–	25	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	30
Wounds and Injuries	59	77	12	200	127	254	8	184	34	201	20	42	64	46	40	17	48	23	20	3,043
Burns and Scalds	4	1	–	11	4	12	–	12	3	11	–	1	1	4	–	–	–	–	1	140
Hernia	–	–	–	3	1	1	–	–	–	1	–	1	–	–	–	–	–	1	–	12
Poison	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	3
Cancer	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Purpura	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1
Scurvy	–	–	–	–	–	–	–	–	–	3	–	–	–	–	–	–	–	–	–	3
TOTAL	301	882	72	853	539	921	61	1,152	218	1,141	247	226	292	277	275	108	276	143	133	16,543

continued from page 121.

a Spinal Meningitis. *b* Coup de Soleil.

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BRAZIL STATION.

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The Squadron employed on the Brazil Station in 1862 consisted of eleven vessels, one of which was a stationary ship at Rio de Janeiro. The mean force corrected for time was 1,420. The total number of cases of all kinds of disease and injury was 2,315. Of these, fifty-eight were invalided, and twenty-four died, the former being in the ratio of 40·8, and the latter of 16·9 per 1,000 of the mean force. So far as the mortality is concerned, there is only a fractional increase as compared with the preceding year, but the ratio of invaliding is nearly doubled.

The daily loss to the service from fevers was in the ratio of 4·2 per 1,000, from diseases of the organs of respiration it was 4·3, from affections of the alimentary canal 3·1, from venereal diseases 5·2, from rheumatism 3·, from boils, abscesses, and ulcers 18·5, and from wounds and injuries of various kinds 10·3. The daily number sick from all causes was 58·3 per 1,000, which is an increase as compared with 1861 of 10·1 per 1,000.

Fever.—One hundred and eighteen cases of primary fever were under treatment, two of which were invalided, and two had a fatal termination.

There was only one case of fever in the Ardent, and it does not appear to have been of much importance, as although it confined the patient sixteen days to the sick list, no special mention is made of it in any of the returns from that vessel.

Of five cases of primary fever which appear in the Returns of the Curaçoa, four were of an ephemeral nature, their average duration on the sick list being little more than twenty-four hours. The fifth case, however, was of a more severe character, the patient having been eighty-two days under treatmest. In this instance the disease appears to have

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have been characterised chiefly by those anomalous symptoms which occasionally distinguish remittent fevers. There was no great amount of febrile action at any time, but there was tolerably constant headache, and steadily progressing debility and emaciation, accompanied with pseudo-rheumatic pains, and œdema of the feet and ankles. These conditions are familiar to all who have any acquaintance with the diseases of malarial districts. They are frequently described as cases of climatic cachexia, and are especially common on the Mediterranean Station.

There were twelve cases of primary fever in the Curlew, ten of which were of an ephemeral nature. The other two cases occurred in one man, and they gave a total of eighty-seven days' sickness on board ship, besides which he was for some time in the hospital on board the Madagascar. On the last occasion on which he was placed upon the sick list he was seventy-one days under treatment before being sent to hospital, from whence it appears he was ultimately invalided. The case is in every respect similar to that which occurred in the Curaçoa. The patient had very little fever, but his health continued to fail, and he lost flesh rapidly despite of all dieting and administration of tonics. These cases rarely improve in the climate in which the disease is contracted.

Neither of the cases in the Doterel were of any importance.

There were fifty cases of primary fever in the Forte, the average treatment of each case occupying nineteen days. Some of the cases appear to have been of great severity, and to have presented many of the symptoms of enteric fever. The report of the surgeon * of the Forte is to the following effect: "Fifty cases of fever have been admitted on the sick list during the period of this journal, nearly all of typhoid character. They occur singly, without any known cause except climate, chiefly in or soon after leaving the River Plate, generally attacking persons of delicate constitution, or those weakened by other diseases, and have a tendency to run a rapid course if not checked by early stimulant treatment. The tongue has been observed dry and brown, the teeth covered with sordes, and the patient delirious at the end

* Dr. J. J. Crawford.

end of forty-eight hours from the first attack of rigor. These cases are commonly free from organic complication, but sometimes typhoid pneumonia occurs, the strength is soon reduced and the flesh wasted. The convalescence is not protracted as a rule. . . . . Purgatives should be sparingly employed, as there is a tendency to a mild diarrhæa towards the end of the case. The chief indication is to support the patient's strength from the commencement." There was no loss to the service either by death or invaliding from the cases in the Forte.

In the Madagascar there was only one case of fever, and it appears to have been of an ephemeral character.

There were two cases of primary fever in the Oberon, one being ten days, and the other thirty-seven under treatment. No details in connection with these cases appear in the returns of the ship, and it may therefore be presumed that they were not of much importance.

In the Satellite, which during a considerable portion of the year was stationed in the River Plate, there were forty-one cases of primary fever, one of which had a fatal termination. Some of these were undoubted cases of enteric fever. The fatal case occurred when the ship was at anchor in the River Plate, and was characterised by great debility, diarrhœa, and rose-coloured eruption over the abdomen. Unfortunately there was no post-mortem examination of the body.

There was a single case of fever in the Spider. The man appears to have been ultimately invalided from the British Hospital at Monte Video for an inflammatory affection of the liver.

Of three cases of primary fever which appear in the Returns of the Stromboli, one had a fatal termination. It is entered by the surgeon of the vessel as a case of typhus, and the same designation is given to it by the surgeon of the Madagascar, to which ship the patient was transferred for hospital treatment, and where he died on the following day. The patient, a boy, was placed on the sick list at Rio de Janeiro in the month of June, complaining of headache, sickness, and debility. He stated that he had not had any rigors, but that he had not slept well for some nights. Two days afterwards he appeared to be much weaker, but on that evening there was a remission. On the following day there was a yellow tinge of the skin and eyes, the tongue became very dry, and there was considerable tenderness over the liver. He was

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was at once sent to the Madagascar. On his arrival there he was in a state approaching to coma, which gradually increased. The pulse could hardly be felt at the wrist. The skin was very hot and dry; the tongue dry, dark, and like a piece of leather. There was complete prostration, and he was evidently in a sinking state. Before death, ecchymosed patches appeared on the extremities, chest, and abdomen.

Diseases of the Brain and Nervous System.—A case of apoplexy had a fatal termination in the Satellite. It occurred in the person of an able seaman, a habitual drunkard, and followed in the train of a succession of epileptic seizures.

Diseases of the Organs of Respiration.—Under this head 310 cases were placed on the sick list, of which 280 were either simple catarrhs or sore throat. From the remaining affections the loss to the service by invaliding was in the ratio of 9·1, and of deaths 2·1 per 1,000. This is greatly different to what obtained during the previous year, when the ratio of invaliding was only 4·5, the ratio of mortality, however, being also 4·5.

Diseases of the Heart and Bloodvessels.—Under the head of phlebitis there appears a fatal case of some interest in the Stromboli. It occurred in the person of a boatswain's mate, who complained of stiffness and pain in the calf of the right leg, with numbness of the foot and toes. He stated that for some time past he had had pains in his toes, like the sensation of being pricked with pins. With the exception of a little preternatural acceleration of pulse, his general health was good. The leg was swollen, hard, and painful over the whole of the calf, but principally over its outer and anterior aspect. Under treatment the pain and hardness in the leg partially subsided; but pain alone, without hardness or swelling, extended along the posterior aspect of the thigh and hip, in the course of the sciatic nerve, and in its general character much resembled sciatica. At the same time the left leg became affected, but in a much less degree, and without the swelling. He was treated with colchicum and opiates, but no improvement took place, and the pains became more severe at night. The iodide of potassium was now had recourse to, but he does not appear to have derived benefit from that medicine. Exactly one month after his entry on the sick list, the pain in the right thigh became suddenly much worse, and extended to the

the sciatic notch, over which there was considerable tenderness. There was no redness, and little if any swelling or hardness. Turpentine stupes gave some relief, and under the administration of tonics he appeared to improve for a few days; but the pain recurred a second time, and was accompanied with pain over the right kidney, extending to the testicles and along the inner part of the right thigh. Up to this time his general health had not suffered much; his appetite had been good, and the secretions regular. Now, however, the urine became diminished in quantity and very high coloured; his tongue and breath were foul; a peculiar smell came from the body, and the pulse was small and quick. The symptoms of nephritis continued; he did not complain of the right leg, but the left leg became uneasy and of a yellowish colour. On the same day on which his left leg assumed this appearance he had made more water. On the following day the report by the surgeon* of the vessel is as follows:—"Feels somewhat better this morning. His medicine has been changed to acet. ext. colchici, gr. i; pil. hydrarg. gr. ii; three times a day. In the evening, about five o'clock, he expressed himself much better, 'almost well,' and without pain. He sat up in bed and enjoyed some soup; an hour and a half afterwards he was suddenly seized with excruciating pain in the left leg. I found him writhing in agony, covered with a cold sweat, and with a quick and very small pulse. He complained of giddiness and a dull pain in the head. Opium and brandy were given him, and opiate stupes applied to the leg, but without relief: he became pulseless. The brandy and water was given every half hour; the leg became perfectly black up to Poupart's ligament, the pain ceased, and he gradually sank and died, without any other symptom, about half-past ten, p.m. Post-mortem examination, twelve hours after death:—The body was much emaciated. The left lower extremity was very much swollen and of a purple black colour, perhaps from some coagulum blocking up the femoral vein. The stomach and intestines were quite healthy; so was the liver. The heart and great vessels were in a healthy state; the posterior parts of both lungs were congested, from gravitation after death, and the apex of each contained a quantity of peculiar creamy-looking frothy mucus. The left lung was also firmly adherent, from old inflammation. The kidneys, externally, presented no mark

* Surgeon Geo. F. Banks.

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mark of disease; but, on cutting into them, a quantity of healthy pus was found in the calices and infundibula, though no ulceration could be discovered. The bladder was small and contracted, and contained a small quantity of very high coloured but healthy urine."

It is greatly to be regretted that so interesting a case should be rendered practically valueless by the imperfect manner in which the post-mortem examination appears to have been conducted. No examination whatever was made of the affected limbs.

Diseases of the Alimentary Canal.—There is a very considerable increase in the ratio of these diseases as compared with the previous year. In 1861 the ratio per 1,000 of all diseases coming under this head was 108·9, in 1862 it was 170·2. This increase is almost entirely attributable to the greater prevalence of dysentery and diarrhœa in the different vessels.

In the Ardent there were four cases of dysentery, fourteen of diarrhœa, and one fatal case which appears under the head of ulceration of the bowels. These affections were chiefly contracted in the River Plate. The history of the fatal case is interesting. The man was placed upon the sick list at Monte Video with diarrhœa accompanied with much griping, and but little constitutional disturbance. The stools are described as granular, and being deficient in bilious colouring matter, but there was no mucus nor blood. A few days afterwards there was a tendency to mental depression, the skin was hot, and the pulse accelerated; there was also thirst, with anorexia. Gradually these symptoms increased; there was pain on pressure over the abdomen, in the umbilical and hypogastric regions especially, and gurgling over the ileo-cæcal valve. In this state, having lost flesh and strength, and become very desponding, he was discharged to the British Hospital at Monte Video, where he died about five weeks afterwards of perforation of the bowel, according to the report of the surgeon of the hospital. This case in its general history presents all the features of an obscure form of enteric fever.

Many of the cases of diarrhœa occurring in the Forte were contracted when the ship was at Bahia in the last quarter of the year. The disease seems to have been prevalent there, and the surgeon is inclined to attribute it to the state of the atmosphere, which was excessively warm and damp. In the Satellite the disease appeared in the River Plate, and is referred by

by the surgeon to suppressed perspiration from night chills and exposure, and over-indulgence in fruit.

Rheumatism, &c.—The loss to the service by invaliding for rheumatism, is almost precisely the same as it was in the preceding year, although the disease was much more prevalent. In 1861 the ratio of cases under treatment was 69·6 per 1,000 of mean force, while in 1862 it is 88. There is a loss, however, by invaliding for diseases of the bones and joints, which did not obtain in 1861. One of these cases seems to have been of much severity. It occurred in a boy of the Stromboli, commencing with caries of the alveolar ridge of the superior maxilla, and involving apparently a considerable extent of that bone. He was for some time under treatment in the Civil Hospital at Monte Video, from whence he was discharged to the Madagascar, no improvement having taken place; he was ultimately invalided.

Diseases not classed.—A fatal case of dropsy appears in the returns of the Curaçoa. The patient, a marine, was placed on the sick list with symptoms of dysenteric diarrhœa, which being checked, the abdomen began to enlarge, and fluctuation became very perceptible in it. Hepatic dulness extended both upwards and downwards greatly beyond its normal limits. The abdominal distension increased, the legs became swollen and œdematous. The urine was highly albuminous, but contained no tube-casts; its specific gravity averaged about 1,022. The man died in Haslar Hospital, and on post-mortem examination of the body the liver was found to be enlarged, there was a scrofulous tumour situated on its upper and posterior surface of about four inches in diameter, and there were also a few smaller ones in the centre of the organ.

Wounds, Injuries, &c.—A seaman was killed by falling from aloft; an old quartermaster died from the effects of fracture of the skull sustained by a fall on shore while drunk; and an able seaman, in attempting to get from the lower to the main deck while drunk, fell from the fore ladder, and died from concussion of the brain. A seaman in the act of loading a gun for the purpose of firing a salute, was killed by the premature ignition of the charge. He was blown to pieces.

Seven seamen were drowned; six by falling overboard, two of these having fallen from a stage while engaged in painting ship. One man fell out of a boat, and was drowned.

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The total number of deaths was twenty-four; thirteen from diseases, and eleven from wounds and injuries and drowning, all the casualties being in the persons of blue jackets; the former being in the ratio of 9·1, and the latter of 7·7 per 1,000 of mean force.

As compared with 1861 there is thus only a fractional increase in the total ratio of mortality, but there is a considerable difference in the ratios of the causes of death: the ratio of deaths from diseases in that year being 12·5, while from wounds and injuries it was only 3·6 per 1,000.

Invalided.—Three men were invalided for the sequelæ of fever; three for diseases of the brain and nervous system; thirteen for diseases of the organs of respiration, ten of whom were for phthisis; two for functional or organic disease of the heart; four for diseases of the alimentary canal; three for inflammation of the liver; one for syphilis; one for stricture; five for rheumatism; three for diseases of the bones and joints; three for diseases of the special senses; eight for diseases of the skin and cellular tissue, of whom five were for ulcer; one for dropsy; six for wounds and injuries of various kinds, and two for hernia. The total number invalided being fifty eight, or in the ratio of 40·8 per 1,000, which is an increase of 13·1 per 1,000 as compared with the preceding year. This increase is mainly attributable to phthisis, ulcers, and wounds and injuries.

TABLE, No. I.

SHOWING the Number of CASES of all DISEASES and INJURIES, and the Number INVALIDED and DEAD, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	118	83·	2	1·4	2	1·4
Intermittent Fever	29	20·4	1	·7	—	—
Small-pox	1	·7	—	—	—	—
Apoplexy	2	1·4	1	·7	1	·7
Epilepsy	5	3·5	2	1·4	—	—
Paralysis	2	1·4	—	—	—	—
Delirium Tremens	6	4·2	—	—	—	—
Headache, &c.	7	4·9	—	—	—	—
Inflammation of the Lungs and Pleura	25	17·6	3	2·1	—	—
Phthisis and Hæmoptysis	4	2·8	10	7·	3	2·1
Influenza and Catarrh	233	164·	—	—	—	—
Cynanche	47	33·	—	—	—	—
Asthma	1	·7	—	—	—	—
Functional and Organic Disease of the Heart	12	8·4	2	1·4	2	1·4
Hæmorrhoids	11	7·7	—	—	—	—
Varix	3	2·1	—	—	—	—
Phlebitis	1	·7	-	-	1	·7
Inflammation of the Stomach and Bowels	4	2·8	-	-	1	·7
Dysentery	12	8·4	1	·7	1	·7
Diarrhœa	204	143·6	3	2·1	—	—
Constipation and Colic	22	15·4	—	—	—	—
Inflammation of the Liver	8	5·6	3	2·1	—	—
Syphilis	61	42·2	1	·7	—	—
Gonorrhœa	19	13·3	—	—	—	—
Orchitis	24	16·9	—	—	—	—
Stricture	3	2·1	1	·7	—	—
Incontinence of Urine, &c.	3	2·1	—	—	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Rheumatism	125	88·	5	3·5	—	—
Gout	2	1·4	—	—	—	—
Disease of the Bones and Joints	7	4·9	3	2·1	—	—
Ophthalmia	14	9·8	1	·7	—	—
Amaurosis and Cataract	2	1·4	1	·7	—	—
Otitis and Deafness	6	4·2	1	·7	—	—
Erysipelas	4	2·8	—	—	—	—
Scrofula	4	2·8	—	—	—	—
Bubo (*Symp.*)	18	12·6	1	·7	—	—
Phlegmon and Abscess	521	366·9	2	1·4	—	—
Ulcer	130	91·5	5	3·5	—	—
Psora	8	5·6	—	—	—	—
Eruptions, &c.	32	22·5	—	—	—	—
Dyspepsia and Debility	112	78·8	—	—	—	—
Dropsy	3	2·1	1	·7	1	·7
Worms	2	1·4	—	—	—	—
Not stated	-	-	-	-	1	·7
Wounds and Injuries	432	304·2	6	4·2	4	2·8
Burns and Scalds	16	11·2	—	—	—	—
Hernia	4	2·8	2	1·4	—	—
Drowned	-	-	-	-	7	4·9
Poison	6	4·2	—	—	—	—
TOTAL	2,315	1630·2	58	40·8	24	16·9

TABLE, No. 2.

SHOWING the Number of DAYS' SICKNESS from each DISEASE, and from INJURIES, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	1,827	150	1,977	5·4	3·8
Intermittent Fever	261	14	275	·7	·4
Small-pox	1	36	37	·1	—
Apoplexy	32	-	32	—	—
Epilepsy	58	-	58	·1	—
Paralysis	46	-	46	·1	—
Delirium Tremens	50	-	50	·1	—
Headache, &c.	35	-	35	—	—
Inflammation of the Lungs and Pleura	425	60	485	1·3	·9
Phthisis and Hæmoptysis	178	-	178	·4	·2
Influenza and Catarrh	1,460	-	1,460	4·	2·8
Cynanche	249	-	249	·6	·4
Asthma	27	-	27	—	—
Functional and Organic Disease of the Heart	247	-	247	·6	·4
Hæmorrhoids	62	-	62	·1	—
Varix	59	-	59	·1	—
Inflammation of the Stomach and Bowels	41	-	41	·1	—
Dysentery	250	-	250	·6	·4
Diarrhœa	1,312	-	1,312	3·5	2·4
Constipation and Colic	178	18	196	·5	·3
Inflammation of the Liver	125	-	125	·3	·2
Syphilis	1,964	-	1,964	5·3	3·7
Gonorrhœa	412	-	412	1·1	·7
Orchitis	447	-	447	1·2	·8
Stricture	43	-	43	·1	—
Incontinence of Urine, &c.	37	-	37	·1	—

TABLE, No. 2.—Showing the Number of Days' Sickness from each Disease, &c.—*cont^d.*

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Rheumatism	1,590	-	1,590	4·3	3·
Gout	6	-	6	—	—
Disease of the Bones and Joints	156	-	156	·4	·2
Ophthalmia	204	-	204	·5	·3
Amaurosis and Cataract	62	-	62	·1	—
Otitis and Deafness	54	-	54	·1	—
Erysipelas	72	13	85	·2	·1
Scrofula	108	-	108	·2	·1
Bubo (*Symp.*)	754	-	754	2·	1·4
Phlegmon and Abscess	4,996	-	4,996	13·6	9·5
Ulcer	4,721	-	4,721	12·9	9·
Psora	56	14	70	·1	—
Eruptions, &c.	383	-	383	1·	·7
Dyspepsia and Debility	782	450	1,232	3·3	2·3
Dropsy	44	-	44	·1	—
Worms	11	-	11	—	—
Wounds and Injuries	5,359	27	5,386	14·7	10·3
Burns and Scalds	256	-	256	·7	·4
Hernia	39	-	39	·1	—
Poison	6	-	6	—	—
TOTAL	29,485	782	30,267	82·9	58·3

TABLE, No. 3.

SHOWING the Number INVALIDED from each Ship employed on the BRAZIL Station.

CAUSE of INVALIDING.	Ardent.	Curaçoa.	Curlew.	Doterel.	Forte.	Madagascar.	Oberon.	Satellite.	Sheldrake.	Spider.	Stromboli.	TOTAL.
Continued and Remittent Fever	–	–	–	–	–	–	–	2	–	–	–	2
Intermittent Fever	–	–	–	–	–	1	–	–	–	–	–	1
Coup de Soleil	–	–	–	–	–	–	1	–	–	–	–	1
Epilepsy	–	–	–	–	–	–	–	–	–	1	1	2
Inflammation of the Lungs and Pleura	1	–	–	–	–	–	–	1	1	–	–	3
Phthisis	4	1	–	1	2	–	–	–	–	–	2	10
Disease of the Heart	–	–	–	–	1	1	–	–	–	–	–	2
Dysentery	–	–	–	–	1	–	–	–	–	–	–	1
Diarrhœa	–	–	–	–	–	1	–	1	–	–	1	3
Disease of the Liver	–	–	–	–	–	–	–	2	–	1	–	3
Secondary Syphilis	–	–	–	–	–	–	–	1	–	–	–	1
Stricture	–	–	–	–	1	–	–	–	–	–	–	1
Rheumatism	–	2	2	–	–	–	–	1	–	–	–	5
Diseases of the Bones and Joints	1	1	–	–	–	–	–	–	–	–	1	3
Inflammation of the Eyes	–	–	–	–	–	–	–	1	–	–	–	1
Cataract	1	–	–	–	–	–	–	–	–	–	–	1
Otitis	–	–	1	–	–	–	–	–	–	–	–	1
Abscess	–	–	–	–	1	–	–	1	–	–	–	2
Sloughing Bubo	–	–	–	–	1	–	–	–	–	–	–	1
Dropsy	–	1	–	–	–	–	–	–	–	–	–	1
Ulcer	–	–	–	–	–	–	–	5	–	–	–	5
Wounds and Injuries	–	1	–	–	1	1	–	3	–	–	–	6
Hernia	–	–	1	–	–	–	–	–	–	–	1	2
TOTAL	7	6	4	1	8	4	1	18	1	2	6	58

TABLE, No. 4.

SHOWING the Number of DEATHS in each Ship employed on the BRAZIL Station.

CAUSE OF DEATH.	Ardent.	Curaçoa.	Curlew.	Forte.	Madagascar.	Oberon.	Satellite.	Spider.	Stromboli.	TOTAL.
Continued and Remittent Fever	–	–	–	–	–	–	1	–	1	2
Apoplexy	–	–	–	–	–	–	1	–	–	1
Phthisis	1	–	–	1	–	1	–	–	–	3
Disease of the Heart	–	1	–	–	1	–	–	–	–	2
Ulceration of the Bowels	1	–	–	–	–	–	–	–	–	1
Dysentery	–	–	–	–	–	–	1	–	–	1
Phlebitis	–	–	–	–	–	–	–	–	1	1
Dropsy	–	1	–	–	–	–	–	–	–	1
Not stated	–	–	–	–	–	–	–	1	–	1
Wounds and Injuries	–	–	–	3	1	–	–	–	–	4
Drowned	–	1	2	1	1	–	2	–	–	7
TOTAL	2	3	2	5	3	1	5	1	2	24

TABLE, No. 5.

SHOWING the Names of the SHIPS; the Average Complement and Mean Force of each Ship; the Total Number of Cases; the Total Number of Days' Sickness on Board; and the Average Number of Men Sick Daily.

C. Commissioned. P. O. Paid off. D. Returns defective.

NAME of SHIP.	Number of Guns, Horse Power, &c.	Period.	Average Complement.	Mean Force of each Ship.	Number of Cases.	Number of Days' Sickness on Board.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force of each Ship.	Number discharged to Hospital.
Ardent	3 P. W. 200	year	100	100	152	1,716	4·7	47·	3
Curaçoa – P. O.	23 Sc. – 350	5 mo.	335	140	193	2,266	6·2	44·2	3
Curlew	9 Sc. – 60	year	100	100	179	1,102	3·	30·	10
Doterel	2 Sc. – 60	year	35	35	53	874	2·3	65·7	2
Forte	39 Sc. – 400	year	485	485	712	11,056	30·2	62·2	1
Madagascar	8 – –	year	85	85	185	1,515	4·1	48·2	1
Oberon – P. O.	3 P. W. 260	10 mo.	70	60	73	872	2·3	38·3	–
Satellite	21 Sc. – 400	year	250	250	457	6,121	16·7	66·8	9
Sheldrake	2 Sc. – 60	year	35	35	65	767	2·1	60·	9
Spider – D.	2 Sc. – 60	4 mo.	40	10	22	168	·4	40·	3
Stromboli – C.	6 P. W. 280	9 mo.	160	120	224	1,728	4·7	39·1	5

TABLE, No. 6.

SHOWING the Number of CASES of all DISEASES and INJURIES in each Ship employed on the BRAZIL Station.

DISEASE OR INJURY.	Ardent.	Curaçoa.	Curlew.	Doterel.	Forte.	Madagascar.	Oberon.	Satellite.	Sheldrake.	Spider.	Stromboli.	TOTAL.
Continued and Remittent Fever	1	5	12	2	50	1	2	41	–	1	3	118
Intermittent Fever	–	–	1	–	4	4	1	14	2	–	3	29
Small-pox	–	–	1	–	–	–	–	–	–	–	–	1
Apoplexy	–	–	–	–	–	–	*a*1	1	–	–	–	2
Epilepsy	–	–	1	–	–	2	–	1	–	–	1	5
Delirium Tremens	2	–	–	–	3	1	–	–	–	–	–	6
Paralysis	–	–	–	–	–	–	–	2	–	–	–	2
Headache, &c.	–	1	1	–	1	4	–	–	–	–	–	7
Inflammation of the Lungs and Pleura	7	–	–	7	–	–	1	3	3	–	4	25
Phthisis and Hæmoptysis	2	2	–	–	–	–	–	–	–	–	–	4
Catarrh	26	9	11	–	26	30	6	64	9	2	50	233
Cynanche	2	3	4	4	25	2	1	6	1	–	1	47
Asthma	–	–	–	–	1	–	–	–	–	–	–	1
Functional and Organic Disease of the Heart	–	2	1	–	5	2	–	1	1	–	–	12
Hæmorrhoids	–	–	1	–	4	1	–	4	–	–	1	11
Varix	–	–	–	–	1	–	1	–	–	–	*c*1	3
Inflammation of the Stomach and Bowels	1	–	1	–	–	–	–	–	*b*1	–	1	4
Dysentery	4	–	–	2	4	–	–	1	1	–	–	12
Diarrhœa	14	11	17	7	34	25	6	44	15	2	29	204
Constipation and Colic	–	–	3	–	6	3	–	2	–	1	7	22
Inflammation of the Liver	2	–	–	1	1	–	–	4	–	–	–	8
Syphilis	–	5	13	–	9	4	1	22	2	2	3	61
Gonorrhœa	–	–	7	2	6	1	–	2	1	–	–	19
Orchitis	3	2	–	3	4	–	1	9	1	1	–	24
Stricture	1	1	–	–	1	–	–	–	–	–	–	3
Incontinence of Urine, &c.	–	–	3	–	–	–	–	–	–	–	–	3
Rheumatism	9	10	20	–	20	4	5	26	1	1	29	125
Gout	–	2	–	–	–	–	–	–	–	–	–	2
Disease of the Bones and Joints	2	2	2	1	–	–	–	–	–	–	–	7
Inflammation of the Eyes	–	1	–	–	3	1	–	7	2	–	–	14
Amaurosis and Cataract	1	–	–	–	1	–	–	–	–	–	–	2
Otitis and Deafness	1	–	2	–	3	–	–	–	–	–	–	6
Erysipelas	1	–	–	–	3	–	–	–	–	–	–	4
Scrofula	–	1	2	–	–	–	–	1	–	–	–	4
Bubo (*Symp.*)	4	3	–	–	8	1	2	–	–	–	–	18
Phlegmon and Abscess	16	60	40	10	154	48	23	121	13	5	32	522
Ulcer	4	7	5	4	62	7	4	16	–	1	20	130
Psora	–	–	–	–	2	–	–	–	–	–	6	8
Eruptions, &c.	5	3	3	3	5	1	2	2	2	4	2	32
Dyspepsia and Debility	11	21	2	–	64	7	3	–	–	2	2	112
Dropsy	–	1	–	–	2	–	–	–	–	–	–	3
Worms	–	–	–	–	–	2	–	–	–	–	–	2
Wounds and Injuries	31	41	26	6	189	32	13	56	10	–	28	432
Burns and Scalds	2	–	–	1	5	1	–	7	–	–	–	16
Hernia	–	–	2	–	–	1	–	–	–	–	1	4
Poison	–	–	–	–	6	–	–	–	–	–	–	6
TOTAL	152	193	179	53	712	185	73	457	65	22	224	2,315

a Coup de soleil. *b* Hæmatemesis. *c* Phlebitis.

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In 1862 there were thirteen vessels employed on the Pacific Station, of which six were frigates of various sizes from fourth rates to sixth rates; four were sloops, one was a surveying vessel, and two were store ships, one being permanently stationed at Valparaiso and the other at Callao. There was also a small body of marines on the island of San Juan at Vancouver's Island. The mean force of the station corrected for time was 2,760. The ratio of sickness in the Cameleon was lower than that of any other ship on the station with the exception of the surveying vessel and the store ships, from which, however, it differed only in a very slight degree; the marine detachment also enjoyed a high health-rate. The largest ratios of sickness were in the Devastation, the Clio, and the Termagant.

The daily loss of service from febrile diseases was in the ratio of 2·8 per 1,000 of mean force; from diseases of the brain and nervous system ·6; of the organs of respiration 5·3; from diseases of the heart and bloodvessels 1·1; of the alimentary canal ·8; from inflammatory affections of the liver ·5; from diseases of the genito-urinary organs 2·; from rheumatism 4·; from affections of the special senses ·4; from diseases of the skin and cellular tissue 13·4, of which 11·5 were from boils, abscesses, and ulcers; from dyspepsia and debility 1·; and from wounds and injuries 9·5: the total daily loss of service from all diseases, and wounds and injuries, being equal to about 137 men, or in the ratio of 49·6 per 1,000. This is a decrease as compared with the preceding year of 7·3 per 1,000.

Fevers.—There were 239 cases of primary fever under treatment during the year, none of which terminated fatally. This is a decided improvement upon the preceding year, when there were six deaths from 258 cases. Those deaths, however, were almost altogether owing to an eruption of enteric

(To face p. 138.)

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419, Ordered by the House of Commons to be printed 26 June 1865.

enteric fever which occurred in two vessels, and which added very much to the total daily loss of service from these affections. In 1861 the total loss of service on board ship and in hospital from 258 cases of primary fever was 5,327 days, which is in the proportion, within a fraction of a day, of three weeks' treatment to each case, whereas in 1862 the total loss of service from 225 cases was only 2,482 days, which gives an average of only eleven days on the sick list to each case.

The vessels which furnished the largest number of cases of fever were the Cameleon, the Topaze, and the Termagant.

In the Cameleon there were twenty-eight cases of primary fever. They prevailed during the two last quarters of the year when the ship was on the coast of Central America and Mexico. The total days' sickness gave an average of eleven and a half days' treatment to each case. With reference to these cases the surgeon * of the ship says: "Of the diseases themselves by far the most important were those of fever, which has been the bilious remittent, originating with us, I believe, from the heat at Panama, and brought into action by exposure to the direct heat of the sun, as well as being that to which the inhabitants, native as well as foreign, of all this coast from Panama to Mazatlan are very subject, and which I was informed at each of the places we touched at, Acapulco, Manzanilla, and Mazatlan, were at this time very prevalent and severe. The symptoms of those on shore were exactly the same as those we have had on board, though perhaps more severe than the generality of ours, viz., high fever with much hepatic derangement, skin becoming yellow, and exacerbation of rigors with fever returning at short but irregular intervals, and leaving the patients subject to attacks of intermittent fever, and in severe cases apt to cause abscess in the liver or dysentery. Most of our cases soon did well, but in two or three the recovery was prolonged, either from return of fever or from visceral derangement, and in one case, which is still on the list, and has been the most severe, the liver has been acutely inflamed, and I fear the more severe sequela of hepatic abscess." There was a considerable amount of sickness from febrile disease on shore at this time, it would appear, and much mortality had been caused by it.

In

* Dr. Alexander Fisher.

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In the Topaze, there were thirty-five cases of primary fever, of which thirty-three were of an ephemeral nature, their average duration on the sick list being only about six days. Of the remaining cases, one was somewhat complicated in its character. The patient, an officer, a man of powerful frame and strong constitution was attacked at Callao with prostration of strength and general pyrexial symptoms. These were followed by symptoms of acute rheumatism; the wrist, knee, and ankle joints becoming swollen and painful. There was also profuse local perspirations. "At sea these symptoms in a great measure disappeared, when on the ninth day all the characteristics of typhoid fever were present, great prostration, distended tub-shaped abdomen, pain in right cæcum, frequent watery stools. The case was successfully carried through to the 29th day, when the febrile action ceased. A lingering convalescence followed, and on arrival at Esquimault the patient was sent to hospital."

There were 127 cases of primary fever in the Termagant. The total daily loss of service from these cases gives an average of a little upwards of nine days on the sick list to each case. The cases are spread tolerably equally over the whole year, but they were rather more prevalent in the Midsummer quarter. During the first two quarters the vessel was chiefly employed on the coast of Mexico, and off Central America, and during the latter part of the year she was engaged making the passage to England.

In the Clio there were twenty cases of primary fever, ten of which occurred during the Midsummer quarter, when the vessel was anchored for almost the whole of the quarter in the harbour of Acapulco, where the heat was very great, and tried the men severely. The average duration of each of these cases on the sick list was rather more than twelve days. The surgeon* says, that after recovery from even the mildest cases of fever, many of the patients suffered from nervous palpitation, which was very difficult to deal with.

Thirty-five cases of intermittent fever were under treatment during the year, nearly one-third of which appears in the returns of the Clio. The treatment of each case occupied on an average ten days.

The only form of eruptive fever that appears in the returns is small-pox, of which two cases occurred in the Termagant. The

* Dr. F. W. Blake.

The disease was contracted at Guaymas, where it had been prevalent on shore. The first of the two men attacked was a corporal of marines, and in him the disease was modified by his having previously suffered from it. In the other man the disease was more severe, although the case was altogether mild. It occurred at the same time with the other case, and the patient showed no marks of vaccination.

Diseases of the Brain and Nervous System.—These diseases were more prevalent than during the previous year, and there was a considerable increase in the loss to the service, both by invaliding and death from them.

There was a death from softening of the brain in an able seaman of the Bacchante. He had for some time been suffering from mental derangement, and had been under treatment in the temporary hospital at Esquimault, where all his symptoms were much aggravated and complicated with paralysis of the lower extremities. He was ultimately invalided, and died on his passage to England. There appears to have been no post-mortem examination of the body.

A death from apoplexy appears in the returns of the Tartar. It occurred at Guaymas in the person of the engineer's steward, and appears to have been in some measure the effect of insolation. He had been on shore as usual in the morning, between 5 and 7·30 A.M., to market, and shortly after he returned on board he complained of intense headache, with pain and constriction across the thorax, rendering breathing difficult. He had no cough, and no abnormal sounds could be detected either in the heart or lungs. The face was flushed, and the pulse was full and quick. The weather for some time previously had been exceedingly close and oppressive, and the thermometer rarely below ninety degrees by day or night. He was at once put to bed, and various remedies administered; but at 3 P.M., while getting out of bed, he was suddenly seized with all the symptoms of apoplexy. When seen by the medical officer he was quite insensible, the face flushed and turgid, the pulse beating with great force, the pupils contracted, but sensible in some degree to light, and the respiration laboured and stertorous. In this condition he remained, despite every effort to restore him, and died about 6 P.M. of the same evening. On examination of the body, a large quantity of blood was found extravasated over the surface of both hemispheres of the brain, and there was also a small quantity of blood on the floor of the left lateral ventricle.

There

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There was some hypertrophy of the left ventricle of the heart.

Diseases of the Organs of Respiration.—Although there is a considerable reduction in the ratio per 1,000 of cases of diseases of these organs, and also in the ratio of invaliding occasioned by them, there is a very large increase in the ratio of deaths. The mortality was almost entirely from phthisis, however, and the death-rate from this disease on any station is of course much influenced by the opportunities which may occur for invaliding and removing those affected with the disease before it arrives at such a stage as to render removal unadvisable or impossible. Pneumonia proved fatal in the person of a petty officer of the Bacchante, who although not a robust man had previously enjoyed very good health. The disease assumed a very virulent form, and ran on uninterruptedly to a fatal termination.

There were eight deaths from phthisis. In the Charybdis, a boatswain's mate who had been five weeks on the sick list with obscure phthisical symptoms was suddenly seized one evening with profuse hæmoptysis, which proved fatal in a few seconds. Post-mortem examination revealed extensive disorganization of the pulmonary tissue. In the Clio phthisis proved fatal to an ordinary seaman, who was placed on the list complaining of symptoms of ague. Under the influence of quinine the aguish symptoms disappeared, and he then complained of some cough, which he stated was most troublesome in the morning. The hereditary tendency to the disease was decided, he having lost two sisters and a brother by consumption. On examination, disease of the lungs was found to be very extensive, and ran its usual course. One death from this disease appears in the returns of the Hecate, two in the Tartar, one in the Topaze, and one in the Termagant.

Diseases of the Heart and Bloodvessels.—A bandsman of the Bacchante, having just finished playing, complained suddenly of burning heat in the chest, fell on the deck, and expired in a few seconds. No pulse nor action of the heart could be felt from the first, and the case is therefore returned as one of spasm of the heart. The following report of the post-mortem examination is by the surgeon* of the ship: "On making a post-mortem inspection, the heart was found empty,

* Dr. Allan Brown.

empty, and both it and the pericardium were healthy. Immediately above the semi-lunar valves of the aorta was a red congested patch, on which was an ulcerated furrow about three lines in length, indented, with edges and bottom dark coloured and rather foul. On either side of this were cicatrices of what seemed to have been similar ulcerated spots. Both the middle and inner coats of the aorta were removed, exposing the external coat, which was dark and congested at this place. This condition (possibly of a scrofulous nature) was in all probability the immediate exciting cause of death. The muscles of the mouth and face were so firmly contracted that the former could not be opened except by means of very great force.

Diseases of the Alimentary Canal.—These diseases were rather more prevalent than in 1861. Of fourteen cases of dysentery which appear in the tables, seven are taken from the returns of the Cameleon. The treatment of each case occupied, on an average, sixteen days. The surgeon says, with reference to these cases, "Seven cases, of dysentery occurred, of which one was invalided, after a lengthened treatment of fifteen days on his first admission to the sick list, and thirty-four on the second, he having got a return of the disease from a hard day's exercise on shore, and exposure to the sun up a creek at San Blas after being discharged to duty. The other cases of dysentery occurred when diarrhœa was common, and were exaggerations of that disease, and referrible to the same cause, viz., exposure to heat, and subsequently being chilled by insufficient covering at night." Three cases of dysentery appear in the returns of the Tartar, and four in the Termagant. In the former vessel the disease occurred at Guaymas, at a time when affections of the stomach and bowels were common on board, and was referrible, according to the surgeon of the ship, in some measure to the water obtained there, which he says contains a large quantity of saline matter, but more particularly to faulty digestion of food and errors in diet, producing irritation of the bowels. "The cases of dysentery," he says, "were almost entirely treated with ipecacuhana and starch enemata, and the external use of hot fomentations and turpentine, with good results." In the Termagant the dysenteric cases were not of much severity excepting in one instance, in which it was complicated with purpura. This case was altogether a very tedious one, the man being 135 days upon the sick list, but it

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it had a satisfactory termination. The surgeon* of the Termagant speaks in high terms of the therapeutic value of turpentine combined with opium in this disease.

Diseases of the Liver.—A considerable number of cases are returned by the surgeon of the Topaze as hepatic derangement, to designate what he says is popularly known as bilious dyspepsia. They seem to have been of little importance, as they rarely kept the patient more than five or six days on the sick list. A case of hepatic abscess, however, occurred in this ship in the person of a quarter-master, and had a fatal termination. He was placed on the sick list on the 20th of November, labouring under rigors alternating with flushes of heat, and accompanied with dull headache. The pulse was quick and feeble. These symptoms continued persistent, but superadded to them were occasional profuse perspirations accelerated respiration, vomiting, and diarrhœa. Some fulness in the epigastrium, is noted on the 30th of November, and on the evening of the 1st of December this had amounted to "a large diffused swelling of the epigastric region, the size of a child's head, slightly painful on percussion; it feels dull and doughy." On the 4th of December he was removed to the hospital at Esquimault, where he died on the 14th. On post-mortem examination of the body there was found a large gangrenous abscess involving the whole left lobe of the liver, which had burst into the stomach. Smaller abscesses also existed throughout the whole substance of the liver."

Rheumatism.—The ratio of rheumatic cases this year is less than during any of the six years preceding it. The Pacific Station has always had an unenviable notoriety for rheumatism, and a comparison of the various statistical reports shows that this has not been conferred upon it unjustly. Were it not that the condition of the system which favours this disease is begotten by a variety of causes, having no necessary relation to or connexion with each other, it might be considered singular that the West Coast of Africa and the Pacific, stations so dissimilar to each other both in their physical characters and in the duties which devolve upon their respective squadrons, should be so nearly alike in their pre-eminence as regards rheumatic affections. Thus

* Surgeon J. C. Walsh.

Thus it appears that the ratio per 1,000 of mean force, of cases of rheumatism on the West Coast of Africa for six years, viz, from 1856 to 1861 inclusive, was 109·2, and on the Pacific Stations for the same period, it was 109·1; while all the other stations, with the exception of the Australian Station, which is as much as 100·9, and the China Station, which is 99·6, are considerably under this. This will, however, be referred to again in considering the prevalence of rheumatism in the Total Force. Pacific Station.

Diseases of the Genito-Urinary Organs.—The ratio of cases of all diseases under this head is much less than in 1861. The vessels that suffered most from venereal diseases were the Charybdis and the Topaze, but scarcely any of the disease in the former vessel is attributable to the Pacific Station. The Charybdis arrived at Esquimalt from Japan in March, and it was at Yokohama that all her cases of syphilis were contracted. In the Topaze the diseases were chiefly contracted at Valparaiso.

Diseases of the Skin and Cellular Tissue.—An able seaman of the Bacchante, who had been placed on the sick list with a large carbuncle on the back of the neck, died of pyæmia, the lungs being found after death to be infiltrated with purulent matter; abscesses had also formed elsewhere.

A fatal case of ulcer appears in the returns of the Clio. The man was an exceedingly cachectic subject, captain of the hold, who presented himself at first with a superficial ulcer on the scrotum. This had nearly healed, when extensive impetiginous ulceration broke out, first on the face, three weeks later on the upper extremities, and subsequently on the lower extremities. From the description of the ulceration, it seems to have been of a specific character, and not unlikely dependent on a syphilitic taint. On the ship being about to proceed to sea, he was discharged to a civil hospital near Callao, where he died ten days afterwards.

Wounds and Injuries.—All the deaths under this head occurred in seamen of the Bacchante. Two were killed by injuries to the head sustained by falling from aloft. One man fell a victim to pyæmia, the result of apparently very trifling injuries. He was returning from leave, and while in the act of stepping into the boat, fell upon a rock, by which he sustained a few incised wounds over the right temple, two slight abrasions, and some little contusion of the

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parts just below the right knee. Four days afterwards he was removed to hospital, where phlebitis and extensive cellular inflammation set in, running into numerous abscesses, under which he sunk. The fourth man died from peritoneal inflammation, following upon any injury sustained by the wheels of a waggon passing over his abdomen, while he was on shore on leave.

There were two deaths by drowning, one in the person of a marine who fell overboard while fastening the poop awning, and the other in a seaman who fell overboard at sea from the hammock nettings.

An officer, while inebriated, committed suicide by hanging himself, and an ordinary seaman, who, being found fault with for obstinacy, was ordered as a temporary punishment to stand between two guns on the quarter deck, deliberately jumped overboard through the port immediately behind him, and was never seen to come to the surface.

There were sixteen deaths from disease, and eight from wounds and injuries of various kinds, the former being in the ratio of 5·8, and the latter of 2·8 per 1,000 of mean force, a very close approximation to the ratios of the preceding year.

Invalided.—One man was invalided for the sequelæ of fever; eighteen for diseases of the brain and nervous system, nine of whom were subject to epilepsy; fourteen for diseases of the respiratory organs, of whom eleven were phthisical; ten for functional or organic diseases of the heart; four for diseases of the alimentary canal; five for affections of the liver; thirteen for diseases of the genito-urinary organs, of whom ten suffered from various forms of venereal disease; six for rheumatism; one for gout; one for diseases of the bones and joints; one for blindness; eight for diseases of the skin and cellular tissue: two for dyspepsia; one for dropsy; six for wounds and injuries of various kinds; and three for hernia, making altogether ninety-four, or in the ratio of thirty-four per 1,000 of mean force, which is a slight reduction as compared with 1861.

TABLE, No. 1.

SHOWING the Number of CASES of all DISEASES and INJURIES, and the Number INVALIDED and DEAD, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	239	86·5	1	·3	—	—
Intermittent Fever	35	12·6	—	—	—	—
Small Pox	2	·7	—	—	—	—
Disease of the Brain	1	·3	2	·7	1	·3
Apoplexy	1	·3	—	—	1	·3
Epilepsy	22	7·9	9	3·2	—	—
Paralysis	2	·7	4	1·4	—	—
Insanity	3	1·1	3	1·1	—	—
Delirium Tremens	7	2·5	—	—	—	—
Headache, &c.	28	10·1	—	—	—	—
Inflammation of the Lungs and Pleura	39	14·1	3	1·1	1	·3
Phthisis and Hæmoptysis	12	4·3	11	1·9	8	2·8
Influenza and Catarrh	407	147·4	—	—	—	—
Cynanche	76	27·5	—	—	—	—
Asthma	26	9·4	—	—	—	—
Functional and Organic Disease of the Heart	39	14·1	10	3·6	1	·3
Hæmorrhoids	13	4·7	—	—	—	—
Varix	3	1·1	—	—	—	—
Inflammation of the Stomach and Bowels	7	2·5	1	·3	—	—
Dysentery	14	5·	2	·7	1	·3
Diarrhœa	283	102·5	1	·3	—	—
Cholera	1	·3	—	—	—	—
Constipation and Cholic	72	26·	—	—	—	—
Inflammation of the Liver	23	8·3	5	1·8	1	·3
Jaundice	10	3·6	—	—	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	7	2·5	2	·7	—	—
Syphilis	90	32·6	6	2·1	—	—
Gonorrhœa	30	10·8	—	—	—	—
Orchitis	55	19·9	2	·7	—	—
Stricture	21	7·6	2	·7	—	—
Incontinence of Urine, &c.	2	·7	1	·3	—	—
Rheumatism	279	101·	6	2·1	—	—
Gout	1	·3	1	·3	—	—
Disease of the Bones and Joints	12	4·3	1	·3	—	—
Ophthalmia	39	14·	—	—	—	—
Amaurosis and Cataract	2	·7	1	·3	—	—
Otitis and Deafness	13	4·7	—	—	—	—
Erysipelas	8	2·8	1	·3	—	—
Scrofula	2	·7	1	·3	—	—
Bubo (*Symp.*)	55	19·9	—	—	—	—
Phlegmon and Abscess	838	303·6	1	·3	1	·3
Ulcer	246	89·1	4	1·4	1	·3
Psora	1	·3	—	—	—	—
Eruptions, &c.	35	12·6	1	·3	—	—
Dyspepsia and Debility	133	48·1	2	·7	—	—
Dropsy	3	1·1	1	·3	—	—
Worms	9	3·2	—	—	—	—
Purpura	1	·3	—	—	—	—
Wounds and Injuries	846	306·4	6	2·1	4	1·4
Burns and Scalds	32	11·5	—	—	—	—
Hernia	5	1·8	3	1·1	—	—
Drowned	-	-	-	-	2	·7
Suicide	1	·3	-	-	2	·7
Poison	1	·3	—	—	—	—
TOTAL	4,132	1497·1	94	34·	24	8·6

TABLE, No. 2.

SHOWING the Number of DAYS' SICKNESS from each DISEASE, and from INJURIES, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	2,476	57	2,533	6·9	2·5
Remittent Fever	304	59	363	·9	·3
Small Pox	42	- -	42	·1	—
Disease of the Brain	3	25	28	—	—
Epilepsy	420	- -	420	1·1	·3
Paralysis	86	42	128	·3	·1
Insanity	142	36	178	·4	·1
Delirium Tremens	37	- -	37	·1	—
Headache, &c.	202	- -	202	·5	·1
Inflammation of the Lungs and Pleura	973	278	1,251	3·4	1·2
Phthisis and Hæmoptysis	369	263	632	1·7	·6
Influenza and Catarrh	3,234	87	3,321	9·	3·2
Cynanche	429	- -	429	1·1	·3
Asthma	278	38	316	·8	—
Functional and Organic Disease of the Heart	921	117	1,038	2·8	1·
Hæmorrhoids	83	63	146	·4	·1
Varix	37	- -	37	·1	—
Inflammation of the Stomach and Bowels	217	35	252	·6	·2
Dysentery	242	- -	242	·6	·2
Diarrhœa	1,672	- -	1,672	·4	·1
Cholera	3	- -	3	—	—
Constipation and Colic	364	12	376	1·	·3
Inflammation of the Liver	373	132	505	1·3	·4
Jaundice	113	11	124	·3	·1

TABLE, No. 2.—Showing the Number of Days' Sickness from each Disease, &c.—*cont^d.*

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	207	68	275	·7	·2
Syphilis	2,519	687	3,206	·8	·2
Gonorrhœa	469	12	481	1·3	·4
Orchitis	1,010	-	1,010	2·7	·9
Stricture	304	130	434	1·1	·3
Incontinence of Urine	26	-	26	—	—
Rheumatism	3,643	478	4,121	11·2	4·
Gout	46	-	46	·1	—
Disease of the Bones and Joints	450	-	450	1·2	·3
Ophthalmia	436	73	509	1·3	·4
Amaurosis and Cataract	16	83	99	·2	—
Otitis and Deafness	85	-	85	·2	—
Erysipelas	181	42	223	·6	·2
Scrofula	8	74	82	·2	—
Bubo (*Symp.*)	1,262	-	1,262	3·4	1·2
Phlegmon and Abscess	6,004	203	6,207	17·	6·1
Ulcer	4,652	775	5,427	14·8	5·3
Psora	15	-	15	—	—
Eruptions, &c.	545	105	650	1·7	·6
Dyspepsia and Debility	926	201	1,127	3·2	1·1
Dropsy	5	-	5	—	—
Worms	39	-	39	—	—
Purpura	135	-	135	·3	·1
Wounds and Injuries	8,051	1,413	9,464	25·9	9·3
Burns and Scalds	285	-	285	·7	·2
Hernia	104	-	104	·2	—
Poison	6	-	6	—	—
TOTAL	44,449	5,599	50,048	137·	49·6

Table, No. 3.

Showing the Number Invalided from each Ship employed on the Pacific Station.

CAUSE of INVALIDING.	Bacchante.	Cameleon.	Charybdis.	Clio.	Devastation.	Hecate.	Marine Detachment at San Juan.	Mutine.	Nereus.	Tartar.	Termagant.	Topaze.	Total.
Continued and Remittent Fever	–	–	–	–	1	–	–	–	–	–	–	–	1
Disease of the Brain	–	–	–	–	–	–	–	–	–	–	–	1	1
Softening of the Brain	–	–	–	–	–	–	1	–	–	–	–	–	1
Epilepsy	1	1	1	2	–	–	–	–	–	–	2	2	9
Paralysis	1	–	–	–	1	–	–	–	1	–	–	1	4
Insanity	–	–	1	–	–	–	–	–	–	–	–	2	3
Inflammation of the Lungs	1	–	–	–	–	–	–	–	–	–	1	1	3
Phthisis and Hæmoptysis	3	–	1	–	2	–	1	1	–	–	1	2	11
Disease of the Heart	2	–	1	3	1	1	–	–	–	–	1	1	10
Disease of the Liver	–	–	–	–	1	1	–	–	–	–	1	2	5
Hæmatemesis	–	–	–	1	–	–	–	–	–	–	–	–	1
Dysentery	–	1	–	–	–	–	–	–	–	–	1	–	2
Diarrhœa	–	–	1	–	–	–	–	–	–	–	–	–	1
Syphilis	–	–	1	–	–	2	2	–	–	1	–	–	6
Orchitis	–	–	1	1	–	–	–	–	–	–	–	–	2
Stricture	1	–	–	–	–	–	–	–	–	–	–	1	2
Calculus	1	–	–	–	–	–	–	–	–	–	–	–	1
Disease of the Kidneys	–	–	–	–	–	–	–	–	–	–	–	2	2
Rheumatism	2	–	2	1	–	–	1	–	–	–	–	–	6
Gout	–	–	1	–	–	–	–	–	–	–	–	–	1
Arthritic	–	–	–	1	–	–	–	–	–	–	–	–	1
Amaurosis	–	–	–	–	–	–	–	–	–	–	–	1	1
Erysipelas	–	–	–	–	–	–	–	1	–	–	–	–	1
Scrofula	–	–	–	–	–	–	–	–	–	–	–	1	1
Ulcer	–	2	2	–	–	–	–	–	–	–	–	–	4
Fistula in Ano	1	–	–	–	–	–	–	–	–	–	–	–	1
Tumor	–	–	–	1	–	–	–	–	–	–	–	–	1
Dyspepsia and Debility	–	–	–	1	–	–	–	–	–	–	1	–	2
Dropsy	–	–	–	–	–	–	–	–	–	–	1	–	1
Wounds and Injuries	–	–	2	–	2	1	–	1	–	–	–	–	6
Hernia	–	–	–	1	–	–	–	–	1	–	–	1	3
Total	13	4	14	12	8	5	5	3	2	1	9	18	94

TABLE, No. 4.

SHOWING the Number of DEATHS in each Ship employed on the PACIFIC Station.

CAUSE OF DEATH.	Bacchante.	Cameleon.	Charybdis.	Clio.	Hecate.	Mutine.	Nereus.	Tartar.	Termagant.	Topaze.	TOTAL.
Softening of the Brain	1	–	–	–	–	–	–	–	–	–	1
Apoplexy	–	–	–	–	–	–	–	1	–	–	1
Inflammation of the Lungs	1	–	–	–	–	–	–	–	–	–	1
Phthisis	–	–	1	2	1	–	–	2	1	1	8
Disease of the Heart	1	–	–	–	–	–	–	–	–	–	1
Dysentery	–	–	–	–	–	–	1	–	–	–	1
Abscess of the Liver	–	–	–	–	–	–	–	–	–	1	1
Empyema	1	–	–	–	–	–	–	–	–	–	1
Ulcer	–	–	–	1	–	–	–	–	–	–	1
Wounds and Injuries	4	–	–	–	–	–	–	–	–	–	4
Drowned	–	1	–	–	–	1	–	–	–	–	2
Suicide	–	–	*a*1	–	–	–	–	–	–	*b*1	2
TOTAL	8	1	2	3	1	1	1	3	1	3	24

a Hanging. *b* Drowning.

Table, No. 5.

Showing the Names of the Ships; the Average Complements and the Mean Force; the Total Number of Cases; the Total Number of Days' Sickness on Board; and the Average Number of Men Sick Daily in each Ship.

C. Commissioned. D. Returns Defective.

NAME of SHIP.	Number of Guns, Horse Power, &c.	Period.	Average Complement.	Mean Force of each Ship.	Number of Cases.	Number of Days' Sickness on Board.	Average Number of Men Non-effective Daily.	Ratio per 1,000 of Mean Force.	Number discharged to Hospital.
Bacchante - -	39 Sc. 600	year	545	545	765	7,602	20·8	38·1	34
Cameleon - -	17 Sc. 200	year	160	170	274	1,857	5·	31·2	–
Charybdis - -	21 Sc. 400	year	225	225	310	4,034	11·	48·8	12
Clio - - -	22 Sc. 400	year	265	265	481	5,005	13·7	51·6	16
Devastation - C.	6 P.W. 400	9 mo.	170	130	170	2,885	7·9	60·7	17
Hecate - - -	6 P.W. 240	year	120	120	148	1,317	3·6	30·	3
Marine Detachment at San Juan - - D.	- -	10 mo.	65	50	29	412	1·1	20·	2
Mutine - - -	17 Sc. 200	year	145	145	184	2,038	5·5	37·9	6
Naiad - - -	6 - -	year	20	20	32	246	·6	30·	–
Nereus - - -	6 - -	year	30	30	23	336	·9	30·	3
Tartar - - -	20 Sc. 250	year	245	245	361	3,301	9·2	37·5	–
Termagant - -	23 Sc. 310	year	310	310	806	8,324	22·8	73·5	–
Topaze - - -	39 Sc. 600	year	445	445	478	6,178	16·	35·9	35
Tribune - - C.	23 Sc. 300	3 mo.	280	70	72	854	2·3	32·8	–

WEST COAST OF AFRICA STATION.

(To face p. 155.)

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WEST COAST OF AFRICA.

West Coast of Africa Station.

The Squadron on the West Coast of Africa in the year 1862 consisted of twenty-two vessels of various sizes, with a mean force, corrected for time, of 2,190 men. The time included in the returns received from the different vessels varied from five to twelve months. The total number of cases of disease and injuries under treatment was 3,743, fifty-one of which were invalided, and forty-eight had a fatal termination. This is a considerable decrease as compared with the preceding year. The healthiest vessels were the Handy, the Torch, and the Arrogant; the most sickly the Dart, the Investigator, and the Wrangler.

The Handy was employed altogether in the Lagos lagoon. She was so exceptional a vessel that no comparison can fairly be drawn between her and any other vessel of the squadron. She rarely had more than a crew of from ten to twenty Europeans, the remainder of her complement being kroomen. The medical officer* says: "Owing to the defective condition of the Handy's boilers, she rarely left her anchorage in the middle of the lagoon, where she caught the first of the sea-breeze which blows for eight months of the year from seaward into the lagoon, N.E., the remaining four harmattan months from S.W. I found all sanitary arrangements well calculated for ensuring to the crew as good health as the climate permitted. A wooden stage was erected over the quarter-deck and waist, supported by light iron stanchions about eight feet high, while the men had a similar arrangement made of double canvas. The officers and men lived entirely on deck, and as a protection from rain or dews at night, a curtain was fitted between the roofing and gunwale. By this arrangement the vessel was kept scrupulously clean below. . . . . The men

* Surgeon H. Eales.

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men but rarely visited the shore, and then only under the superintendence of a petty officer."

The comparatively healthy condition of the Arrogant is attributed by the surgeon of that vessel to the circumstance that the men were not employed so much in river service as in the previous year.

The healthiness of the Torch may be fairly attributed to her being constantly employed cruising at sea carrying the mails for the squadron, and to the fact of her being for a considerable part of the year on the southern or healthiest division of the station. The comparatively high health-rate which the Arrogant enjoyed may also be referred to her being very little employed in river service during the year.

Of the vessels which show the highest sick-rates, the largest amount of days' sickness in the Dart is referrible to cases of remittent fever contracted while the ship was in the River Gambia, and to diarrhœa, and boils and abscess. There was, however, no loss to the service, either by deaths or invaliding, from these affections.

The sickness in the Investigator was almost entirely attributable to fever contracted while the vessel was stationed in the River Lagos, in which locality also the Wrangler, the most sickly ship on the station, appears to have suffered severely from remittent fever.

By referring to Table 2, it will be seen that the daily loss of service from febrile diseases was about twenty-seven men, or in the ratio of 12 per 1,000 of mean force, a reduction of nearly one-third as compared with the preceding year. The loss of service from diseases of the brain and nervous system was in the ratio of ·8 per 1,000; from affections of the organs of respiration, 3·; of the heart and bloodvessels, ·5; and of the digestive organs about ·3; of the liver, ·2; and from diseases of the genito-urinary organs, 3·3. From rheumatism the daily loss of service was in the ratio of 3·1; from diseases of the special senses, ·6; from affections of the skin and cellular tissue 13·7, 7·1 being from boils and abscesses, and 5·3 from ulcers; the total loss from these affections being almost exactly the same as obtained in the preceding year. The daily loss of service from wounds and injuries of various kinds was equal to about twenty men, or in the ratio of 9· per 1,000. The total number daily sick was 119·3, being

being in the ratio of 54·4 per 1,000 of mean force. In 1861 the ratio was 62·0.

Fevers.—The total number of cases of fever under treatment throughout the year was 826, of which 675 were either of a continued or remittent type, 140 were of the intermittent form, and eleven were cases of yellow fever. The ratio of sickness from these different forms of fever was 377·1 per 1,000 of mean force. In 1861 the ratio was as much as 520 per 1,000. Unfortunately, in consequence of an outbreak of yellow fever in one vessel, the mortality in the present returns is nearly equal to that of the preceding year; but for this pestilence the death-rate from fever would only have been a little more than one-half of that of 1861.

Yellow Fever.—Eleven cases of this fever appear in the returns of the Bloodhound, seven of which had a fatal termination. At the time the disease was prevailing on board, however, many cases of fever of a severe nature were under treatment, "but," the medical officer* says, "none were classed as yellow fever except those in whom the symptoms were unmistakable." The disease made its appearance when the ship was lying at Batanga, the first case occurring in the person of the captain's steward, who was placed upon the sick list on the 15th of September, with severe febrile symptoms, and died on the 18th with yellowness of the skin and conjunctivæ, suppression of urine, and black vomit. On the 16th of September a carpenter's mate was seized. His case is not detailed, but he recovered, and was discharged to duty in fourteen days. On the 18th an able seaman was entered on the list with mild febrile symptoms. He rapidly became worse, constant vomiting set in, and he died on the fourth day from the invasion of the fever. In this case there was vomiting of black ink-like fluid, and enemata brought away black fæcal matter. The next case occurred on the 21st, in the person of an able seaman, who recovered. On the 28th of September an assistant engineer was seized with fever of a similar type to the others, and he also recovered. The next three cases occurred on the same day, the 1st of October, in the persons of two stokers and a corporal of marines. They all terminated fatally, both the stokers dying in two days, and the

* Assistant Surgeon W. G. Eames.

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the corporal of marines in four, from the date of being placed on the sick list. On the 2d of October the engineer was taken ill. His case is not detailed, but he died on the 4th. The next case occurred on the 3d, in the person of an ordinary seaman, who recovered; and the last case entered on the returns as yellow fever was a marine, who died after being five days under treatment. As has been stated above, many cases of fever of a severe nature were under treatment at the same time these fatal cases occurred. They are not returned as yellow fever for the reasons stated by the medical officer, but they in all probability belonged to the same type. Between the 15th of September, the date on which the first case returned as yellow fever was placed on the sick list, and the 16th of October, there were nineteen of these cases, which, assuming them to have been of the yellow fever type, would give altogether thirty cases under treatment.

The following extract from the journal of the Bloodhound details the various movements of the ship in connexion with this outbreak. It may be incidentally premised, for reference to this will be made hereafter, that yellow fever was prevailing during the month of July at Fernando Po, and that in a very short space of time it had carried off more than one-third of the entire purely Spanish population of that island.

"On our arrival at Fernando Po, on the 27th of July, with Her Majesty's Consul on board, a demand was made for our services through the consul to proceed to the Benin, in order to obtain redress for some outrages that had been committed by the natives. We left for this river on the 1st of August, consequently the duration of our stay at Fernando Po on this occassion was five days. I have made every inquiry, both from English and Spanish residents, as well as the most intelligent natives, and they all agree in their statement, that although great sickness and mortality existed at this time on board the convict hulks and shipping lying at anchor in Clarence Bay, it had not extended to the shore. With these ships and hulks we had no communication whatever, as the coaling depôt off which Her Majesty's ships anchor is in another bay (Maidstone), distant some mile or mile and a half. At this time the ship was perfectly healthy. The disease prevailing at Fernando Po was stated by the medical authorities to be yellow fever. During this visit none of the white ship's company, with the exception of the stewards and officers, held any communication with the shore. Arriving off the River Benin on the night of the 3rd of August, we came to an anchor, and the following morning entered the river, where we remained till the 27th of August, twenty-three days. It was much to be regretted no medical man was in the river, whose opinion as to the nature of the disease which had made such havoc amongst the residents could be depended on; but, from the statement made to me by a resident there, who

who had studied medicine, I have no doubt the disease was the same that had depopulated all the other rivers in the Bight—yellow fever. His wife had died a month before, and the symptoms he described were those of this disease. A few days after, a trading agent died with symptoms exactly similar. During our stay in this river the rains were prevalent, lasting sometimes for days without cessation; the river was swollen, and detached masses of floating vegetation, separated from the banks, were constantly coming down and fouling the ship, frequently causing her to drag. To clear these away necessitated a fresh exposure of the ship's company, and frequently their clothes were wet through once or twice in the twenty-four hours. Quinine was administered daily till the supply was exhausted, which happened a day or two before we left the river. All that could be procured in the river was purchased, but could not be given daily as the stock at Fernando Po was finished, and I consequently could not replenish there. It will be seen that towards the latter part of August remittent fever became rather prevalent. Leaving the river on the 27th of August, we proceeded to Lagos, where the consul communicated with the Governor of that place. No unusual sickness was prevalent there at the time. Leaving this, we steamed to Fernando Po, in company with Her Majesty's ship Brisk, and arrived on the 4th of September. At this time the sickness prevailing amongst the shipping had disappeared; there was none on the island. Only the usual communication with the shore took place, stewards and officers landing. We remained at Fernando Po till the 10th of September, from whence we proceeded to Batanga, a small village about fifty miles south of Cameroon. It was while lying off this place, on the 15th of September, that the first case of yellow fever appeared, eighteen days after leaving the river; but it must be borne in mind that this man was complaining for two days before he applied for treatment. Notwithstanding this, the time that elapsed between leaving and the appearance of the disease appears long. Yet, after having made all the inquiries in my power, both from the stewards who landed with this man, and also from residents at Fernando Po, as to disease being prevalent, I have not been able to trace the slightest evidence that would warrant an assumption that he contracted the disease by infection at that place. As I stated before, the Brisk, whose white men were employed daily on shore coaling, escaped without a case. To what, then, is the outbreak to be attributed? I confess I feel myself at a loss to form anything but an opinion, which may possibly be an erroneous one, but I believe the germs of the disease to have been planted in the river. Why they should have remained so long dormant is the only unsatisfactory link in the evidence that has caused me to form this opinion."

It is not of much importance where the Bloodhound contracted this fatal form of fever. It appears evident that the disease was prevailing in one or two localities at least, at which the vessel had been, and it is a significant fact that the first person attacked was the captain's steward, one of the few white

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white persons belonging to the ship whose duties would bring him in almost daily contact with the people on shore. It is very interesting to know that this is the first record there is of yellow fever having appeared in the Niger, or in any of the effluent rivers of its delta. On this occasion it appears to have been imported into the Benin, the Bonny, the Brass and the Old and New Calabar rivers; from thence it passed down the coast to Fernando Po, and like all epidemics of this frightful scourge (and it almost always appears in the epidemic form), it continued its ravages, until all the food for its maintenance was exhausted. It is worse than illogical to talk of this fever being attributable to local causes. The physical condition of the rivers in which it prevailed were in no whit different from what they had been ever since our squadrons had blockaded this coast, and yet in none of those rivers in which it appeared at this time had it ever appeared before. The great use made of steam power, and the high rate of speed possessed by the majority of vessels employed in the slave trade, present the conditions best calculated for importing and propagating the disease, from Cuba or elsewhere, to any of the rivers on the West Coast of Africa. The only matter of surprise is that the disease is not more frequently conveyed to the African Coast. The difficulty of tracing such outbreaks to their origin is easily explicable, when the peculiar and secret nature of the service on which such vessels are employed is considered; and it is little wonder if the information concerning them, reaching the ears of medical officers on distant parts of the station, should be of the vaguest kind, frequently obtained through most unreliable channels, and calculated to give rise to expressions of opinion of the most conflicting character.

The history of this outbreak of yellow fever is thus given by the surgeon of the Brisk*: "Early in May last, soon after the rainy season set in, a most destructive type of fever broke out amongst the natives in the River Bonny, which spread rapidly to the officers and white portion of the crews of the palm-oil vessels in that river, and committed dreadful ravages amongst the natives as well as the Europeans. The epidemic was then communicated to the crews of the palm-oil vessels, and natives of many of the other rivers of the Bight of Biafra, more especially the New and Old Calabar, and Brass rivers, and was equally if not more fatal than at Bonny; and having gathered

* Surgeon T. J. Haran.

gathered in its harvest of death, it gradually declined, and disappeared from all the rivers by the end of June. The imperfect accounts which have reached me from time to time, fix the mortality at two-thirds of the white men in all the rivers, but in all probability this must be an exaggeration. It is certain, however, that at least one-half must have succumbed to its virulence. It is regarded to have been 'yellow fever' because vomiting of a dark fluid occurred in the majority of fatal cases; but from the fact of the disease having first appeared among the natives of the pre-eminently filthy town of Bonny, who pay little attention to cleanliness of any kind, and are besides strongly addicted to human sacrifices and cannibalism, and who, moreover, as a class, are not supposed to be predisposed to that disease, it is far more likely to have been a very malignant form of pure typhus and typhoid fever.

"I have also to report that early in July an equally destructive type of fever suddenly broke out at Fernando Po amongst the Spanish population. The first case occurred amongst the convicts confined in one of the two hulks moored in Clarence Bay. It spread rapidly from the convicts to the sailors in the other hulk, the soldiers composing the small garrison (the greater number of whom used to be then sent off every night to sleep in the sailors' hulk, as a sanitary precaution), and to the mechanics employed on shore, and in a very short time carried off seventy-six out of about two hundred, of which the entire purely Spanish population consisted. The ravages of this terrible epidemic were confined exclusively to the Spaniards of unmixed blood, as not one of the Cuban coloured settlers (emancipados) was attacked, although many people died on shore on whom they used to attend as nurses. Several people informed me that the epidemic was communicated from the Bonny through the medium of the intercolonial mail steamer "Retriever," which visits this anchorage once a month with the mails, but remains only a few hours, and leaves for the Bonny the day she arrives, while others will have it that it was generated by local causes alone. The same difference of opinion prevails as to its nature. The majority positively assert that it must have been yellow fever, on account of its uncontrollable virulence, and the vomiting of dark fluid which took place in every fatal case; but a very good authority, the highly intelligent commandant of the garrison, told me himself, that he had seen a great deal of yellow fever in Cuba, but that he had not observed a single instance of 'black vomit' the whole time the epidemic

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lasted. He did see a good deal of what he described as fluffy, dark, bilious and grayish vomiting, and that was all."

Continued and Remittent Fevers.—The Prometheus suffered more from these fevers than any other ship on the station; and this is entirely referrible to her being stationed, from the 27th of July of the preceding year to the 16th of April, in the River Lagos. The average duration of each case on the sick list on board was upwards of sixteen days, but a large number were sent to hospital, where they remained for a long time, their convalescence being very slow. There was a loss to the service by death of four men; and doubtless many would have required to have been invalided for the sequelæ of these fevers had not the ship been ordered to England. In the Statistical Report of the Health of the Navy for 1861, it is noticed, with reference to this ship, that from the 14th of November cases of fever began to multiply, and that on the 3d of December forty-eight out of ninety-eight whites on board were on the sick list. A considerable number of these were sent to hospital at Ascension, where they improved much, although it does not appear that they regained sufficient strength to enable them to return to their ship. On the 24th of January, there being no likelihood of the vessel leaving the river, thirty-one of the worst cases were sent to Ascension, so that only twenty-four of the original crew remained on board, twelve of whom were under medical treatment. On the 16th of April the Prometheus left Lagos for Ascension, at which island she arrived on the 27th, and, having refitted, sailed from thence on the 8th of May for England, carrying with her all her invalids from hospital. During the homeward passage the crew improved much in health.

There were ninety-two cases of primary fever in the Wrangler, a very large proportion of these being referrible to exposure in the River Lagos. Seventy-two of these cases occurred during the first two quarters of the year, when the vessel was employed mostly between that river and Fernando Po, and their average duration on the sick list was nearly ten days. They did not occasion any loss to the service, either by invaliding or death.

There was a good deal of febrile disease in the Bloodhound and in the Investigator; but in the former vessel the cases (excluding those which had connexion with the outbreak of yellow fever) were, as a rule, mild. The Investigator was employed both at Lagos and in the River Niger, and to those localities may be referred sixty cases which appear in her returns

returns. Two men were invalided on account of the sequelæ of these affections.

In the Arrogant there were forty-eight cases of primary fever, three of which had a fatal termination. The following extract from the surgeon's* journal of that ship is exceedingly interesting:—

"Remittent fever, the most important disease of Africa, assumed in some parts a milder type than in others, but its general character was adynamic; depletion was quite inadmissible, and the flagging powers required support. Quinine, wine, and strong beef tea were administered at an early stage, and the more powerful stimulants as the disease advanced were given freely. In the fatal cases well-marked typhoid symptoms were present at the close. A lad, aged 16, stout and plethoric, only a few months from Plymouth, was attacked without exposure of any kind, showed symptoms of coma on the fourth day without much previous headache, became rapidly insensible, and died off Lagos on the eighth day, his symptoms resembling in many points those of the men who suffered last year from fever after the attack on Porto Novo. Another lad, aged 16, of delicate appearance, lately drafted from the Isis, contracted fever in the Congo, of a similar form, and was so much reduced after two relapses, that it was not considered prudent to expose him again to the deleterious climate of the coast, and he was invalided from Ascension. The fever contracted in the Congo was always followed by debility more prolonged than at other localities; the persons employed there in boats escaped mainly owing to the precautions adopted, and the issue of quinine; but the last death from remittent fever resulted from disease acquired in that river: the patient, a temperate, steady man, from the nature of his occupation, that of sailmaker, little exposed to the exciting causes of sickness, having previously enjoyed good health, was unexpectedly seized with rigors, followed by violent headache, and on the day succeeding his application delirium set in, which continued until his death on the fourth day, without any lucid interval. The post-mortem examination of the head revealed no trace of inflammation in either the membranes or substance of the brain, nor was there observed any undue vascularity nor effusion in any part. Remittent was complicated with dysentery amongst the Portuguese residents at Benguela, and 'pernicious fever' (so called) prevailed at Massamedes, the most southern division of the province of Angola, which town is built on a sandy bay, well elevated, generally cool, and exposed to the influence of the sea breeze, and abundantly supplied with good beef, fish, and European vegetables, which grow plentifully at a short distance from the town, from which the rank luxuriance of vegetation found in Central Africa has disappeared. This place was previously considered very healthy, and possessing so many natural advantages had been used as a sanitarium for the Portuguese troops until the latter portion of 1861 and the beginning of 1862, when the malignant

* Dr. Hart Gimlett.

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nant form of fever visited the province, and decimated its inhabitants. As the Arrogant did not call at Little Fish Bay, I was not able to ascertain the particular symptoms which marked the attacks, but all agreed that the disease was rapid in its progress, and it was not styled yellow fever by the Portuguese practitioners. An intelligent officer, captain of the port at Benguela, who had been employed for fourteen years in the country, informed me that he had observed the same kind of sickness during his residence, and that at one period it was termed remittent, next typhoid, and lastly yellow fever, without his observing much difference in its appearance, but that at this time a destructive species of murrain or plague had swept off great numbers of cattle, not only in this district, but in the interior amongst the Gambos (negroes), who had lost whole herds, their chief means of subsistence, and he imagined that some affinity might be traced between the epidemics, if they were not propagated by contagion in both instances. The Arrogant reached the southern division of the station in May, which is the winter season at Angola; and the residents of Loando calculate almost as a matter of certainty upon a notable diminution of temperature in this month, even fixing the particular day (the 14th). Owing to contrary winds, the ship did not proceed to Little Fish Bay (or Massamedes), but anchored at Elephant Bay, about forty miles from Benguela; here she remained fourteen days, for the purpose of exercising and drilling the small-arm men, as well as practising with great guns. The country about this bay is dry and sterile, composed of bare irregular hills, presenting evident marks of volcanic action, covered towards the sea with scoriæ resembling the formation at Ascension, and producing the archil dye-moss (orchilla tinctoria) in great abundance. These hills are intersected by narrow sandy valleys, furnished with tufts of scanty vegetation, and uninhabited. In such a place it was supposed by the commodore that the crew might be allowed with safety to have a run on shore from dinner-time till sunset; but it is difficult to restrain seamen after long confinement: some sprang overboard from the boats conveying them ashore, and remained in their wet clothes until they dried; others bathed when heated, remaining in the water, which was comparatively cold, for a long time; three of them strayed away, and were brought in by kroomen, and one remained out all night. These men had discovered a distillery of aguardiente at Equemina, six miles off, and had become intoxicated. Remittent fever occurred after this indulgence and exposure, and proved fatal to one man who had been in the water. In his case it was of an adynamic character, without delirium, resembling enteric fever; and at the same time all the fever patients, and eighteen cases of diarrhœa occurring after their visit to the shore, accompanied also by pyrexia more or less severe, showed symptoms of prostration, four of the latter being serious attacks. As the sickness at Benguela and along this coast was complicated with bowel affections, and Elephant Bay was not far distant from that town, it might be inferred with some probability that the malaria imbibed was eliminated from the intestinal canal; however, no distinct remission was observed, though quinine was given with benefit during convalescence, and strength soon returned, for the ship put to sea immediately, and the effects

soon

soon passed away. The mode of treatment recommended by Dr. Livingstone, viz., of giving large doses of quinine in combination with calomel, rhubarb, and extract of jalap, repeated until a purgative or diaphoretic action was produced, did not, in my practice, afford any decided advantage over the treatment usually employed, which was to administer an emetic of ipecacuan if the stomach was distended, followed by a mild aperient, and at bedtime calomel and antimonial powder, if the stomach was not irritable, with a draught of the liq. acet. ammon., mist. camph., and spt. ætheris nitrici; and on the next day, if the stomach was settled, skin and tongue moist, a mixture composed of sulphates of quinine and magnesia, with dilute sulphuric acid. Irregularity of the pulse was not much regarded unless it became very weak, when diffusible stimulants and others were given as required. In the present year wine was always useful, as the patients were deficient in stamina. Effervescent saline draughts with hyosciamus, and a sinapism to the epigastrium, generally removed nausea and sickness. Blisters were not much used, though not laid aside altogether; cold to the shaven head was found grateful usually; a dry tongue was always considered a bad sign; beef tea was also given; bitter tonics, quinine, wine, malt liquor, and animal food in good quantity, were taken during convalescence, for the men were certainly not so well able to bear up against the disease as in the first year."

Thirty cases of primary fever appear in the Returns of the Antelope, one of which terminated fatally. This vessel was employed cruising during a considerable portion of the year. The disease did not assume a severe form in any of the cases excepting in the fatal one, and in that instance the patient, a boatswain's mate, had been on shore at St. Paul's de Loando, where, having been detained by a tornado, he got intoxicated, exposed himself to a burning sun, and afterwards having got drenched through with rain, remained for some hours in his wet clothes. Two days afterwards he was placed on the sick list with severe febrile symptoms of a distinctly remittent type. On the second day of his illness he was delirious, on the third the delirium continued with a tendency to coma, and on the fourth he died.

There were fifty-five cases of primary fever in the Brisk. Twenty-six of these cases occurred during the Christmas quarter, and with reference to them the surgeon* says: "They were contracted in the following order from exposure to malaria, while the origin of each can be traced to the place where such exposure took place and the disease was contracted. Three in Lagos Roads in the beginning of October from exposure to the filthy emanations arising from the

* Surgeon T. J. Haran.

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the river water which constantly surrounded the ship, there being no flood-tide into the river on account of the immense body of lagoon water which kept it swollen the whole time. One of these cases, which became developed eight days after exposure, was complicated by passive cerebral congestion and stupor on the first day of the attack. It occurred in a delicately organised boy of 17, a midshipman. The accession of the febrile paroxysm was preceded by severe diarrhœa and griping. I was fortunately a witness to the setting-in of stupor, and immediately had his head shaved, and blistered with the liquor vesicatorius. Quinine, broths, and wine were liberally administered, and after four hours of complete insensibility reaction set in, and the case progressed satisfactorily afterwards. Ten were contracted in the Sierra Leone River, on the two separate occasions we lay there. They were nearly all severe, but not marked in any case by dangerous symptoms. Five resulted from exposure in the River Niger, and occurred in two officers (engineers), and three men out of twelve lent to Her Majesty's Ship Investigator on the 27th of August, for service in that river. All except two stokers retained by the Investigator to do duty, and another stoker unfortunately drowned on the bar of the River Lagos on the 26th of October, rejoined this ship on the 15th of November. These cases were all accompanied by gastric or hepatic symptoms, or both, and much mental and physical prostration. Two were caused by exposure in the River Lagos, and occurred in an assistant surgeon and an acting second master of this ship; the former lent to do duty in the gunboats on the 11th of August, and the latter on the 4th of October. Both rejoined on the 25th of November, suffering from fever of the bilious remittent type, gastric irritability being the most distressing symptom. The assistant surgeon had suffered severely on several occasions since the 4th of October, and was reduced to a state of great debility. One contracted in the beginning of December in Lagos Roads. Two in Lagos River, in the middle of that month, by officers employed there in surveying ships' stores, &c. Three relapses, of which the assistant surgeon suffered two, and continued on the sick list at the end of the year. The number of cases which have occurred on board at various times since our arrival on this station, from exposure, not only in the River Lagos, but outside its bar three miles from the shore, proves beyond question its highly deleterious character, more particularly when the rainy season loads it with decomposing débris drained from the lagoons which feed it."

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In the Dart there were twenty-six cases of primary fever. Fourteen of these were of an ephemeral nature; one was contracted previously to the ship arriving on the station, and of the remaining eleven which occurred during the Christmas quarter of the year, the medical officer* makes the following observations :—" During the quarter ending this month, eleven cases of remittent fever have occurred ; three in the River Gambia, the cases being characterised by evening aggravation and morning remissions of fever, which continued at its height until the morning of the fourth day, when it began to decline, the secretions, which had previously all been checked, now becoming free, the urine being very copious, and abounding in urates. Two of the cases were attended with severe bilious vomiting and retching, which, although very distressing to the patient, was a salutary effort of nature to eliminate a superabundant secretion of bile from the system, producing marked relief, and the subsequent retching was readily allayed by effervescing citrate of potash draughts, combined with small doses of chloroform. The other case was attended with cerebral complication. The remaining cases occurred two days after leaving the Isles De Los, and fourteen days after coming out of the River Nunez, where the ship had remained two days and nights. It is important to observe that only the Europeans that were in the ship up the above-mentioned river suffered, none of a boat's crew, consisting of a lieutenant, five European sailors, and four kroomen, that were up the River Pongos for five days and nights, having suffered at all. To the boat's crew quinine in four-grain doses with half an ounce of rum-and-water was administered every morning and evening whilst away from the ship, and continued once a day for a fortnight after their return; the men wore blue clothing by day, and thick blanket clothing at night, which was always carefully dried by exposure to the sun in the day, so that the body was well protected at all times. To the ship's company quinine combined as above was only administered once a day, and that only whilst in the river, as if it had been given oftener, or continued after leaving the river, the quantity on hand would not have sufficed. The duration and termination of the fever were similar in these cases to those in the former, but in none was there any gastric irritability, vomiting, or retching, and in all there was considerable cerebral determination, causing very severe headache, and in one case amounting

* Assistant Surgeon D. Bowen Thomas.

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amounting to congestion. Upon the subsidence of the fever there remained in all the cases considerable debility, and very marked anæmia, requiring stimulants, good diet, mineral, vegetable, and ferruginous tonics, the latter being especially efficacious."

In the Espoir, a small vessel which was very seldom employed in river service throughout the year, there were only eight cases of primary fever. They were exceedingly tedious in their convalescence, however, the average duration of each case on the sick list being twenty-two days.

Sixteen cases of primary fever appear in the Returns of the Falcon. They do not appear to have been of much severity, as the average treatment of each case did not occupy more than about six or seven days.

In the Griffon, which was employed in the Bights of Benin and Biafra, there were forty-four cases of primary fever, one of which terminated fatally. In this instance the patient rather sank exhausted under the cachexia engendered by repeated attacks of fever acting upon a constitution broken down by dissipation, than to active febrile disease. The total days' sickness from these cases gave an average of ten days on the sick list to each case.

There was very little febrile disease in the Philomel, only seven cases appearing in her Returns. One of these, however, terminated fatally. The sufferer was the captain's coxswain, who appears to have contracted the disease in the Solyman River. The commander, with the coxswain and a boat's crew of kroomen, was employed surveying, and remained on shore for four days. Some days after their return to the ship the coxswain was seized with remittent fever of a severe type, of which he died on the tenth day. The commander was also attacked with fever at the same time. He returned to duty after being eight days on the sick list, but for some months he continued to be very much debilitated, and susceptible to occasional febrile seizures.

In the Ranger there were twenty-seven cases of primary fever, one of which had a fatal termination. Eleven of these cases, including the fatal case, occurred in the first quarter of the year, and are attributable to exposure in the River Congo, and probably in some degree to the fact that the medical officer did not consider it necessary to administer quinine to the ship's company while the vessel was in the river. The fatal case occurred in the person of an officer, and

and is thus narrated in the journal of the Ranger:— "——— was sent as a prize officer to take charge of a schooner, name unknown, containing 507 slaves, captured off Manque Grande on the 1st January 1862, and to navigate her to St. Helena. When we parted company the same afternoon, he did not complain of any illness whatever, but, on the contrary, seemed rather elated at the prospect of visiting that island. In one or two days, however (I have been told), he began to complain of headache, for which he took some opening medicine, and after that some quinine. Notwithstanding these measures, fever of a formidable character ensued, which gradually increased in intensity until he reached St. Helena on the morning of the 17th January, when he was removed to the military hospital there, and died the same afternoon. A post-mortem examination disclosed an enormously enlarged liver. He had always lived a most temperate life, and up to his death had not complained of any material illness since he arrived on the Coast of Africa. There can be little doubt, therefore, that had he received ordinary medical treatment he would have recovered, as did the other cases which occurred on board about the same time. Nor can it be doubted that the case of the deceased, as well as the other cases alluded to, were due to our visit to the Congo, where we anchored off Punta da Linha on the night of the 20th December previously. . . . Whilst in the River Congo no quinine was administered to the ship's company, as it was not considered necessary; but I should not be inclined to omit its administration on any future occasion, even though doubts may be entertained as to its prophylactic virtues."

There were thirty cases of primary fever in the Torch. They were, as a rule, of an ephemeral character, not requiring the patient to be kept longer than four or five days on the sick list on an average.

There is little to be said in connexion with the cases of febrile diseases occurring in the other vessels of the squadron. In the Meander, permanently stationed at Ascension, there were only three cases of primary fever, and their average duration on the sick list was fifteen days. Of six cases which appear in the Returns of the Mullet, four were of an ephemeral nature. The other two, which were rather severe, occurred in officers who had made a journey for some distance into the interior of the country at Accra.

In the Flying Fish, there were twenty cases of primary fever, but

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but no loss, either by death or invaliding, occurred from them. The surgeon* attributes this happy result to the prophylactic measures adopted on board. These consisted in "th eadministration of quinine morning and evening, in four-grain doses whilst the boats' crews were actually in the river, and the continuance of this medicine for fourteen days after their return to the ship, once daily, in spirits; the clothing of the men in blanket dresses, and the protection of their persons from the direct rays of the sun during the day, and from the influence of the heavy dews at night, by means of properly adjusted awnings; the avoidance of all unnecessary bodily fatigue; regularity of meals, more particularly at early morn, when hot cocoa or coffee was always given; and an abstinence as much as possible from spirits and tobacco."

In the Wye, a store-ship, employed principally in conveying stores and supernumeraries from one part of the station to another, there were twenty-six cases of primary fever, sixteen of which were of an ephemeral nature. The remaining ten cases were of a more severe character, the patients being on an average nearly three weeks on the sick list in each case. All the cases occurring in the Zebra, thirteen in number, were of a slight nature.

Diseases of the Brain and Nervous System.—A gunner's mate of the Investigator is reported to have died of congestion of the brain, but in consequence of the serious illness of the medical officer, there are no details of his case. There was a death from serous apoplexy in the person of an officer, the assistant paymaster of the Mæander. He had been seized with a fit while at a cottage on the Green Mountain at Ascension, and when seen was found to be in a moribund state. On post-mortem examination of the body, about four ounces of fluid were found effused at the base of the skull, while the lateral ventricles were filled with serum. "On the removal of the dura mater, a few opaque patches of a light grey colour were observed on the surface of the brain, and more particularly between the convolutions and in the course of the bloodvessels, indicative of old congestive or inflammatory attacks of the arachnoid; there was also considerable turgidity of the throat, neck, and face, while the integuments were much congested, and of a dark purple colour, and presented the usual appearance of death resulting from apoplexy."

* Surgeon J. N. Dick.

apoplexy."* A marine of the Griffon died after a succession of epileptic fits, which continued for two days. During the intervals of semi-consciousness, he referred to the heart as the seat of pain apparently, and on post-mortem examination of the body, that organ was found to be loaded with fat, and somewhat softened, and the aortic valves and the coronary arteries partly ossified. A death from paralysis appears in the Returns of the Mæander; it occurred in Ascension Hospital, in the person of an African.

There were nine cases of delirium tremens in the squadron, one of which terminated fatally in the person of an officer, and another officer committed suicide while labouring under this disease. Of the nine cases, four occurred in quarter-deck officers, one in a warrant officer, one in an able seaman; two attacks are referrible to one man, a wardroom steward; and one case occurred in a ship's cook.

Diseases of the Organs of Respiration.—The ratio of inflammatory affections of the organs of respiration is one-third more than it was in the preceding year, but the mortality is much less. The ship which suffered most from these affections was the Arrogant, and in this vessel the only fatal case from these diseases occurred. Bronchitis and pleuritis were the forms which the disease assumed, and with reference to them the surgeon says: "Diseases of the chest were chiefly caused by exposure when on liberty at St. Helena. Those of the bronchi were not serious; but one, of a chronic nature, did not yield to treatment, and the man, losing flesh and spirits, was sent to Ascension Hospital, but did not improve, and was invalided from that establishment. Pleuritis was not marked by very acute symptoms. The person who died of it was a bandsman, debilitated by previous service as a soldier in tropical climates, and who suffered from sloughing ulcer on this station in 1860, coming on after a slight bruise. He also suffered from vertigo in the present year. He made little complaint, and could hardly be kept in bed. No active treatment was adopted, but the vital powers appeared to be exhausted. The autopsy showed recent deposition of lymph, and effusion in the left pleura, with almost complete consolidation of the left lung from old disease."

A marine of the Antelope died of phthisis at Echunga, and the second master of the same disease in Plymouth Hospital.

Diseases

* Report from Staff Surgeon J. T. Jenkins, R.N.

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Diseases of the Heart and Bloodvessels.—A krooman of the Mullet died of pericarditis. The history of his case is thus given by the medical officer* of the ship:—"He complained on the 10th of November of shortness of breathing, pain over the whole left side of the thorax, and great weakness. On examining the chest, the whole of the left side, as far as the second rib was found dull; no respiratory murmur heard, and the heart's action was very faint and rapid; the pulse was rapid and weak; it intermitted, but not regularly. Blisters, calomel, and opium, with stimulants were administered, but the disease, though it abated for three or four days at first, afterwards increased; the dyspnœa was excessive; the limbs became so weak from want of circulation, that the patient could with difficulty move them, and the heart was drowned by the extensive effusion. The right lung all the time gave puerile respiration. On making a post-mortem examination of the body, the pericardium was found to contain from four to five pints of fluid, of a greenish semi-plastic, semi-purulent character, in which floated a large quantity of flocculent lymph; the surface of the pericardial bag was studded with deposits of lymph like so many villi; the pericardial surface of the heart was completely covered with organised tenacious lymph: the endocardial lining was quite smooth, as also were the various orifices; the substance of the heart was very pale, and the heart itself was small. The lung on the left side was compressed and pushed altogether behind; it was slightly congested below. The right lung was healthy, although a little pale and emphysematous. There was no disease of the abdominal organs."

Diseases of the Alimentary Canal.—There was a very considerable increase in the ratios of dysentery and diarrhœa during this year, as compared with 1861. In that year the ratio of cases of dysentery was 5·9 per 1,000 of mean force, and of diarrhœa 89·3. In 1862, the ratio per 1,000 of dysentery was 13·6, and of diarrhœa 105.

In the Arrogant there were forty-eight cases of diarrhœa, but none of dysentery. With reference to this disease, the surgeon says: "Diarrhœa was caused in some places by improper food, as at Lagos and Loando, and a scorbutic taint was suspected at Ascension; but the cases treated at Elephant Bay, attended with vomiting, pain and tenderness over the colon, and pyrexia, had some connexion manifestly with

* Assistant Surgeon Alex. Scott, M.B.

with the fever of that district, as the men were attacked after being on shore, and had no change of diet, but they could not with propriety be otherwise classified."

There was a fatal case of dysentery in the Dart. The patient, a marine, died in the hospital at Ascension, where he appears to have been attacked with the disease, as he was sent to that establishment for the cure of secondary syphilis.

There were two fatal cases of dysentery in the Handy, at Lagos. In one case the patient, an able seaman, had suffered previously from the disease in China. During his service on the river at Lagos he had repeated attacks of fever, which made him very weak, and when the dysenteric symptoms set in, his constitution was too much undermined to enable him to cope with them. The other case occurred in a krooman.

There were two fatal cases of dysentery in the Mæander, one in the person of a marine, and the other in that of a dispensary assistant. In the latter case the disease was of a violently hæmorrhagic character, the patient dying exhausted from excessive loss of blood.

Two deaths from dysentery appear in the Returns of the Prometheus. In one case, the patient, a boy, had been discharged to the Antelope for a passage to Ascension Hospital, where it was hoped change of air would restore him to health, as he was slowly recovering from a severe dysenteric attack. He had a relapse, however, on the day of his joining the Antelope; the disease assumed a very grave aspect, and ran on uninterruptedly to a fatal termination. The other death occurred in the person of a shipwright, who having been under treatment at Ascension Hospital was discharged to the Wye for a passage to rejoin his ship at Lagos. On the passage he was seized with dysenteric symptoms of a mild character, which appear to have been readily checked, and he was discharged to duty. About a fortnight afterwards, however, he had a recurrence of the disease in an aggravated form, accompanied with intense abdominal pain, and constant vomiting: these symptoms ran on unchecked, and he sank exhausted in ten days.

The total number of cases of diarrhœa under treatment in the squadron was 230. The disease is attributed to various causes by different medical officers, but chiefly to over indulgence in fruit and to errors in diet generally. The surgeon of the Mæander attributes the comparative freedom from diarrhœa enjoyed by the crew of that vessel during this year to the removal of a slight scorbutic taint which he thought had been prevalent amongst them.

Diseases

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Diseases of the Liver.—There were five cases of inflammation of this organ under treatment, one of which, in the person of a marine of the Mæander, had a fatal termination. The acute inflammatory symptoms soon subsided in this case, but they were followed by anomalous epigastric and thoracic pains, dyspnœa, and occasional cough and vomiting. Latterly, hectic fever, with profuse sweating, occurred during the day. Post-mortem examination revealed the existence of a large abscess in the left lobe of the liver.

Wounds and Injuries.—Three seamen were killed by falling from aloft. A marine was killed by falling from an unguarded window at Cape Coast Castle. A seaman died in the Military Hospital at Sierra Leone, from extensive injuries sustained by falling from aloft.

A marine belonging to the detachment serving at Ascension, was killed by a cart, from which he fell, the wheel passing over his body; and three seaman were killed in the attack on Robaga, one having sustained a wound of the liver, one a wound of the chest, and the third being shot through the head.

Two seamen were drowned, one by falling overboard from aloft and the other in attempting to swim a horse across the bar at Lagos.

As already mentioned, an officer committed suicide by cutting his throat, while labouring under delirium tremens.

There were forty-eight deaths altogether, thirty-six being from disease, and twelve from wounds and injuries of various kinds; the former being in the ratio of 16·5 and the latter of 5·4 per 1,000 of mean force. This is a great reduction as compared with the preceding year, when, however, the mortality was for various reasons exceptionally great.

Invalided.—Five men were invalided for the sequelæ of fever; eight for diseases of the brain and nervous system, six of whom laboured under epilepsy; five for diseases of the organs of respiration, three of whom were phthisical subjects; six for diseases of the heart and bloodvessels; three for dysentery; five for diseases of the genito-urinary organs; two for rheumatism; one for ophthalmia; one for scrofulous disease; one for ulcer; six for dyspepsia and debility; six for wounds and injuries of different kinds; and two for hernia; making a total of fifty-one, being in the ratio of 23·2 per 1,000 of mean force, a considerable reduction as compared with the preceding year, when the ratio per 1,000 was 38·

TABLE, No. 1.

SHOWING the Number of CASES of all DISEASES and INJURIES, and the Number INVALIDED and DEAD, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	675	308·2	4	1·8	11	5·
Yellow Fever	11	5·	-	-	7	3·1
Intermittent Fever	140	63·9	1	·4	—	—
Measles	1	·4	—	—	—	—
Apoplexy	4	1·8	-	-	2	·9
Epilepsy	14	6·3	6	2·7	—	—
Paralysis	3	1·3	1	·4	2	·9
Delirium Tremens	9	4·1	-	-	1	·4
Headache, &c.	54	24·6	1	·4	—	—
Inflammation of the Lungs and Pleura	27	12·3	2	·9	1	·4
Phthisis and Hæmoptysis	7	3·1	3	1·3	2	·9
Influenza and Catarrh	171	78·	—	—	—	—
Cynanche	62	28·3	—	—	—	—
Functional and Organic Disease of the Heart	10	4·5	4	1·8	1	·4
Hæmorrhoids	17	7·7	1	·4	—	—
Varix	2	·9	1	·4	—	—
Inflammation of the Stomach and Bowels	8	3·6	—	—	—	—
Dysentery	30	13·6	3	1·3	7	3·1
Diarrhœa	230	105·	—	—	—	—
Constipation and Colic	72	32·8	—	—	—	—
Inflammation of the Liver	5	2·2	-	-	1	·4
Jaundice	4	1·8	—	—	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	11	5·	—	—	—	—
Syphilis	42	19·1	—	—	—	—
Gonorrhœa	20	9·1	—	—	—	—
Orchitis	42	19·1	—	—	—	—
Stricture	10	4·5	4	1·8	—	—
Incontinence of Urine, &c.	-	-	1	·4	—	—
Rheumatism	189	86·3	2	·9	—	—
Disease of the Bones and Joints	16	7·3	—	—	—	—
Ophthalmia	24	10·	1	·4	—	—
Amaurosis and Cataract	5	2·2	—	—	—	—
Otitis and Deafness	10	4·5	—	—	—	—
Erysipelas	2	·9	—	—	—	—
Scrofula	5	2·2	1	·4	—	—
Bubo (*Symp.*)	20	9·1	—	—	—	—
Phlegmon and Abscess	641	292·6	—	—	—	—
Ulcer	253	115·5	1	·4	—	—
Eruptions, &c.	60	27·3	—	—	—	—
Dyspepsia and Debility	173	78·9	6	2·7	—	—
Scurvy	2	·9	—	—	—	—
Dropsy	4	1·8	-	-	1	·4
Worms	6	2·7	—	—	—	—
Wounds and Injuries	623	284·4	6	2·7	9	4·1
Burns and Scalds	25	11·4	—	—	—	—
Hernia	3	1·3	2	·9	—	—
Drowned	-	-	-	-	2	·9
Poison	1	·4	—	—	—	—
Suicide	-	-	-	-	1	·4
TOTAL	3,743	1709·1	51	23·2	48	21·9

TABLE, No. 2.

SHOWING the Number of DAYS' SICKNESS from each DISEASE, and from INJURIES, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	6,804	1,618	8,422	23·1	10·5
Yellow Fever	102	35	137	·3	·1
Intermittent Fever	1,049	146	1,195	3·2	1·4
Measles	7	- -	7	—	—
Apoplexy	19	5	24	—	—
Epilepsy	310	76	386	1·1	·5
Paralysis	78	73	151	·4	·1
Insanity	- -	17	17	—	—
Delirium Tremens	113	15	128	·3	·1
Headache, &c.	182	- -	182	·4	·1
Inflammation of the Lungs and Pleura	613	248	861	2·3	1·
Phthisis and Hæmoptysis	152	291	443	1·2	·5
Influenza and Catarrh	844	- -	844	2·3	1·
Cynanche	499	- -	499	1·3	·5
Functional and Organic Disease of the Heart	102	184	286	·7	·3
Hæmorrhoids	157	56	213	·5	·2
Varix	31	15	46	—	—
Inflammation of the Stomach and Bowels	166	- -	166	·4	·1
Dysentery	649	270	919	2·4	1·
Diarrhœa	1,279	77	1,356	3·6	1·6
Constipation and Colic	336	46	382	1·	·4
Inflammation of the Liver	106	31	137	·3	·1
Jaundice	148	- -	148	·4	·1

TABLE, No. 2.—Showing the Number of Days' Sickness from each Disease, &c.—*cont^d.*

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	253	24	277	·7	·3
Syphilis	766	472	1,238	3·3	1·5
Gonorrhœa	254	-	254	·6	·2
Orchitis	679	130	809	2·1	1·
Stricture	218	85	303	·8	·3
Incontinence of Urine	-	23	23	—	—
Rheumatism	2,140	361	2,501	6·8	3·1
Disease of the Bones and Joints	316	56	372	1·	·4
Ophthalmia	371	-	371	1·	·4
Amaurosis and Cataract	89	42	131	·3	·1
Otitis and Deafness	111	20	131	·3	·1
Erysipelas	22	-	22	—	—
Scrofula	75	108	183	·4	·1
Bubo (*Symp.*)	398	-	398	1·	·4
Phlegmon and Abscess	5,663	63	5,726	15·6	7·1
Ulcer	4,021	319	4,340	11·8	5·3
Psora	8	-	8	—	—
Eruptions, &c.	682	17	699	1·8	·8
Dyspepsia and Debility	969	150	1,119	3·	1·3
Scurvy	60	121	181	·4	·1
Dropsy	58	-	58	—	—
Worms	66	-	66	—	—
Wounds and Injuries	6,539	554	7,093	19·4	8·8
Burns and Scalds	310	-	310	·8	·3
Hernia	10	17	27	—	—
Poison	1	-	1	—	—
TOTAL	37,825	5,765	43,590	119·3	54·4

Table, No. 3.

Showing the Number Invalided from each Ship employed on the West Coast of Africa Station.

CAUSE of INVALIDING.	Alecto.	Antelope.	Arrogant.	Bloodhound.	Brisk.	Espoir.	Falcon.	Flying Fish.	Griffon.	Handy.	Investigator.	Lee.	Maeander.	Philomel.	Prometheus.	Ranger.	Wrangler.	Wye.	Zebra.	Total.
Continued and Remittent Fever	–	–	1	–	–	–	–	–	–	1	2	–	–	–	–	–	–	–	–	4
Intermittent Fever	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1
Paralysis	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Epilepsy	–	1	–	1	1	–	1	1	–	–	–	–	–	–	–	1	–	–	–	6
Vertigo	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Bronchitis	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
Phthisis	–	1	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	3
Disease of the Heart	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	2	4
Varix	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Prolapsus Ani	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1
Dysentery	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	3
Rheumatism	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1	2
Stricture	–	1	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	1	–	4
Incontinence of Urine	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1
Inflammation of the Eyes	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Ulcer	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Scrofula	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Dyspepsia and Debility	–	–	–	–	1	2	–	–	–	–	2	–	–	–	1	–	–	–	–	6
Wounds and Injuries	1	–	–	–	–	–	3	–	–	–	–	–	–	–	2	–	–	–	–	6
Hernia	–	–	–	–	–	–	–	–	1	–	–	–	1	–	–	–	–	–	–	2
Total	1	6	4	1	6	2	7	2	2	1	4	1	1	1	3	1	1	3	4	51

Table No. 4.

Showing the Number of Deaths in each Ship employed on the West Coast of Africa Station.

CAUSE of DEATH.	Antelope.	Arrogant.	Bloodhound.	Brisk.	Dart.	Falcon.	Griffon.	Handy.	Investigator.	Meander.	Mullet.	Philomel.	Prometheus.	Ranger.	Wrangler.	Zebra.	Total.
Continued and Remittent Fever	1	3	–	–	–	–	1	–	–	–	–	1	4	1	–	–	11
Yellow Fever	–	–	7	–	–	–	–	–	–	–	–	–	–	–	–	–	7
Apoplexy	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	2
Paralysis	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1
Delirium Tremens	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
Epilepsy	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	1
Inflammation of the Lungs	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Phthisis	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
Disease of the Heart	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1
Dysentery	–	–	–	–	1	–	–	2	–	2	–	–	2	–	–	–	7
Abscess of the Liver	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1
Dropsy	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1
Suicide	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1
Wounds and Injuries	–	1	–	1	–	4	–	–	–	1	–	–	–	–	–	2	9
Drowned	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	2
Total	3	6	7	1	1	4	2	2	2	8	1	1	6	1	1	2	48

TABLE, No. 5.

SHOWING the Names of the SHIPS; the Average Complement and Mean Force of each Ship; the Total Number of Cases; the Total Number of Days' Sickness on Board; and the Average Number of Men Sick Daily.

C. Commissioned. P. O. Paid off. D. Returns defective.

NAME of SHIP.	Number of Guns, Horse Power, &c.	Period.	Average Complement.	Mean Force of each Ship.	Number of Cases.	Number of Days' Sickness on Board.	Average Number of Men Sick daily.	Ratio per 1,000 of Mean Force of each Ship.	Number discharged to Hospital.
Alecto - P. O.	3 P. W. 200	6 mo.	100	50	122	955	·2	40·	2
Antelope - -	3 P. W. 650	year	80	80	149	1,241	3·4	42·5	5
Arrogant P. O.	35 Sc. 360	11 mo.	510	465	434	5,165	14·1	30·3	11
Bloodhound - -	3 P. W. 150	year	65	65	185	1,124	3·4	52·3	2
Brisk - - -	16 Sc. 250	year	220	220	373	3,938	10·7	48·6	9
Dart - - C.	5 Sc. 80	9 mo.	70	50	163	1,538	4·1	82·	5
Espoir - - -	5 Sc. 80	year	70	70	114	1,371	3·7	38·6	4
Falcon - P. O.	17 Sc. 100	10 mo.	175	145	156	1,998	5·4	37·3	3
Flying Fish P. O.	6 Sc. 350	11 mo.	110	100	171	1,820	4·9	49·	8
Griffon - - D.	5 Sc. 80	year	75	75	123	1,104	2·9	38·5	3
Handy - - D.	2 Sc. 60	7 mo.	40	25	38	242	·6	24·	1
Investigator - C.	2 P. W. 34	year	35	35	106	1,142	3·1	88·5	2
Lee - - C.	5 Sc. 80	6 mo.	75	35	86	652	1·7	48·5	2
Mæander - -	10 - -	year	170	170	209	2,150	5·9	34·7	9
Mullet - - C.	5 Sc. 80	6 mo.	70	35	65	675	1·8	51·4	3
Philomel - -	5 Sc. 80	year	60	60	100	1,095	2·9	48·2	6
Prometheus P. O.	5 P. W. 200	5 mo.	115	105	193	2,164	5·9	56·1	41
Ranger - - -	5 Sc. 80	year	70	70	179	1,649	4·5	64·2	3
Torch - - -	5 Sc. 80	year	70	70	106	775	2·	28·5	3
Wrangler - -	4 Sc. 80	year	85	85	322	2,892	7·9	92·9	4
Wye - - -	Sc. 100	year	85	85	193	1,758	4·8	56·4	10
Zebra - - C.	17 Sc. 200	6 mo.	190	95	156	2,136	5·8	61·	7

TABLE, No. 6. - - - - - - - - -

SHOWING the Number of CASES of all DISEASES and INJURIES in each - - - -

DISEASE OR INJURY.	Alecto.	Antelope.	Arrogant.	Bloodhound.	Brisk.	Dart.	Espoir.	Falcon.	Flying Fish.
Continued and Remittent Fever -	3	30	48	96	55	26	8	16	20
Yellow Fever - - - - -	-	-	-	11	-	-	-	-	-
Intermittent Fever - - -	1	-	4	2	7	-	14	-	-
Measles - - - - - -	-	1	-	-	-	-	-	-	-
Apoplexy - - - - - -	-	-	-	-	-	-	-	-	-
Epilepsy - - - - - -	1	2	-	1	1	-	-	-	1
Delirium Tremens - - -	-	-	-	-	2	-	-	1	1
Paralysis - - - - - -	-	-	1	-	1	-	-	-	-
Headache, &c. - - - - -	-	-	2	-	16	13	1	-	8
Inflammation of the Lungs and Pleura	2	-	10	1	1	1	1	-	-
Phthisis and Hæmoptysis - -	-	-	-	-	1	1	1	-	-
Catarrh - - - - - -	6	7	6	4	27	4	7	3	23
Cynanche - - - - - -	1	-	19	2	15	1	-	1	2
Functional and Organic Disease of the Heart - - - - - -	-	-	-	1	-	2	-	1	-
Hæmorrhoids - - - - -	1	-	-	-	6	1	1	-	1
Varix - - - - - -	-	-	1	-	-	*b* 1	-	-	-
Inflammation of the Stomach & Bowels	-	-	2	1	3	-	-	-	-
Dysentery - - - - - -	-	6	-	1	-	1	-	-	-
Diarrhœa - - - - - -	5	12	48	9	13	16	1	19	4
Constipation and Colic - - -	10	-	10	5	6	3	1	-	1
Inflammation of the Liver - -	-	-	1	-	-	1	1	-	-
Jaundice - - - - - -	-	-	1	-	1	-	-	1	-
Inflammation of the Kidneys and Bladder - - - - -	-	-	4	-	4	-	-	-	-
Syphilis - - - - - -	-	3	4	2	3	6	5	-	4
Gonorrhœa - - - - - -	-	1	3	-	-	-	-	2	-
Orchitis - - - - - -	-	5	8	1	2	2	5	3	1
Stricture - - - - - -	1	3	-	-	-	2	-	-	1
Rheumatism - - - - -	1	11	36	2	18	7	1	9	16
Disease of the Bones and Joints -	-	-	2	-	2	3	-	-	-
Inflammation of the Eyes - -	2	-	-	1	5	1	-	-	1
Amaurosis and Cataract - -	-	-	1	-	-	-	-	3	-
Otitis and Deafness - - -	1	1	2	-	2	-	1	-	2
Erysipelas - - - - - -	-	1	1	-	-	-	-	-	-
Scrofula - - - - - -	-	-	2	1	1	1	-	-	-
Bubo (*Symp.*) - - - -	-	-	2	1	1	2	4	2	-
Phlegmon and Abscess - - -	22	37	76	15	94	17	17	30	24
Ulcer - - - - - - -	20	3	33	9	10	2	13	17	10
Eruptions, &c. - - - -	1	2	7	1	1	13	-	-	5
Dyspepsia and Debility - - -	14	1	3	2	5	6	9	8	15
Dropsy - - - - - -	-	-	1	-	-	-	-	-	-
Worms - - - - - -	-	-	*d* 3	-	-	-	-	-	-
Wounds and Injuries - - -	29	21	88	15	69	30	21	38	29
Burns and Scalds - - -	1	1	5	-	1	-	1	2	2
Hernia - - - - - -	-	-	-	-	-	-	-	-	-
Scurvy - - - - - -	-	1	-	-	-	-	-	-	-
Poison - - - - - -	-	-	-	1	-	-	-	-	-
TOTAL - - -	122	149	434	185	373	163	114	156	171

a Prolapsus ani. *b* Phlebitis.

Table, No. 6.

Ship employed on the West Coast of Africa Station.

Griffon.	Handy.	Investigator.	Lee.	Mæander.	Mullet.	Philomel.	Prometheus.	Ranger.	Torch.	Wrangler.	Wye.	Zebra.	Total.
44	11	68	1	3	6	7	45	27	30	92	26	13	675
–	–	–	–	–	–	–	–	–	–	–	–	–	11
13	13	6	7	2	6	9	43	4	1	3	3	2	140
–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	1	–	–	–	–	3	–	–	–	–	–	4
1	–	–	–	1	–	–	2	2	–	–	–	2	14
–	–	1	–	2	–	–	–	–	–	1	1	–	9
–	–	–	–	–	–	–	–	–	1	–	–	–	3
1	–	1	–	–	1	1	–	–	1	1	7	1	54
–	–	2	1	1	1	–	1	–	–	–	4	1	27
–	–	–	2	–	1	–	–	–	–	–	1	–	7
5	2	3	5	14	4	4	9	14	3	8	13	–	171
–	–	–	1	3	–	1	3	2	–	9	–	2	62
–	–	–	–	–	2	–	–	–	1	–	–	3	10
1	1	–	–	–	a 1	–	2	–	2	–	–	–	17
–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	2	–	–	–	–	–	–	–	8
1	3	2	–	2	–	–	7	–	1	1	6	–	30
–	3	2	10	5	4	9	6	7	9	8	14	26	230
–	–	–	3	2	1	–	–	–	2	21	1	6	72
1	–	–	–	1	–	–	–	–	–	–	–	–	4
–	–	–	–	–	–	–	–	–	–	–	–	–	4
–	–	–	2	–	–	1	–	–	–	–	–	–	11
–	–	1	1	4	1	–	1	3	3	1	–	–	42
–	–	3	–	1	–	4	–	1	3	–	2	–	20
1	–	2	–	4	–	–	–	1	1	c 3	2	1	42
–	–	–	1	–	–	1	–	1	–	–	–	–	10
3	1	2	5	5	7	3	18	2	10	11	11	10	189
–	–	–	1	1	–	1	–	3	2	–	–	1	16
–	–	–	2	4	3	–	–	–	2	2	1	–	24
–	–	–	–	–	–	–	–	–	–	–	–	1	5
–	–	–	1	–	–	–	–	–	–	–	–	–	10
–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	–	–	–	–	–	–	–	–	5
1	–	–	–	–	–	–	1	–	–	4	1	1	20
27	–	4	16	34	5	27	11	43	12	58	27	45	641
5	1	1	5	35	9	6	10	27	7	15	10	5	253
–	–	–	1	–	2	–	–	7	1	8	9	2	60
2	1	2	11	26	1	13	5	10	2	12	21	4	173
–	–	–	–	–	–	2	–	–	–	–	1	–	4
–	–	–	–	1	–	–	–	–	1	–	1	–	6
17	3	5	9	54	7	11	23	23	10	64	31	26	623
–	–	–	–	3	1	–	3	1	1	–	–	3	25
–	–	–	1	1	–	–	–	1	–	–	–	–	3
–	–	–	–	–	–	–	–	–	–	–	–	1	2
–	–	–	–	–	–	–	–	–	–	–	–	–	1
123	78	106	86	209	65	100	193	179	106	322	193	156	3,743

c Hæmatocele.

d Guinea-worm.

CAPE OF GOOD HOPE STATION.

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Six vessels were employed on the Cape Station during the year 1862. The mean force corrected for time was 1,180. There were 2,990 cases of disease and injury under treatment, thirty-eight of which were invalided, and twenty-eight had a fatal termination; the ratio in the former being 32·2, and in the latter 23·7 per 1,000 of mean force. This is an increase under both heads as compared with the preceding year,

The daily loss of service from fevers was in the ratio of 10·2 per 1,000; from diseases of the organs of respiration, 9·7; from dysentery and diarrhœa, 9·1; from diseases of the genito-urinary organs, 13·5; from rheumatism, 6·1; from boils and abscess, 11·1; from ulcers, 10·7; and from wounds and injuries of different kinds, 16·9. The total number of men sick daily averaged 115, which is in the ratio of 97·3 per 1,000 of mean force, an increase as compared with the preceding year of 20·6 per 1,000.

Fevers.—Two hundred and forty-eight cases of primary fever were under treatment, but no mortality resulted from them. More than one-half of these, viz., 130 cases, appear in the returns from the Gorgon, and of these sixty-five occurred in the first quarter of the year, when the vessel was stationed in the Mozambique Channel, and for nearly six weeks in the Kongoni mouth of the Zambesi River. The observations of the surgeon* of the ship upon this outbreak of fever are so interesting that they are here given in detail. A brig having arrived at Mozambique with sections of a steamer for Dr. Livingstone, and a request from the Commander-in-Chief that any man-of-war that might meet her should render her every assistance, the Gorgon happened to be the vessel that met her, and upon her the duty accordingly devolved. It having been determined to send a party to assist

* Dr. David Ramsay.

(To face p. 184.)

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419, Ordered by the House of Commons to be printed 26 June 1865.

assist the exploring expedition in transporting the steamer, Lady Nyassa, up the Zambesi and Shire. " . . . . . On the 2d of February a detachment of six officers and forty-eight men crossed the bar at the mouth of the Kongoni, and anchored close to the right bank. Double allowance of spirits was ordered, and three grains of quinine were directed to be given every morning in wine. I accompanied the expedition myself. . . . . After steaming on for six days, and finding that from the stoppages for wood, getting aground, and the difficulty the steamer had in stemming the current, we had only made sixty miles, the captain, the paymaster and myself, with twelve men, left in a gig and whale boat to take the two ladies belonging to the Central African mission up to Chibisa, immediately below the Murchison Falls. We took ten days' provisions with us, and on the tenth day we had only reached the entrance of the River Rico, about sixty or seventy miles below Chibisa. Here one boat with the paymaster and five men returned." . . . . . The remainder proceeded onwards, ultimately reached Chibisa, where they found that the Bishop had died, and that the mission party were in difficulties for provisions. After communicating with them they returned at once down the river, and, after hard work, pulling day and night, reached the Pioneer in three days. There they found that the other boat that had returned had arrived with four men down with fever, and the other two had had fever since. " During our stay at the mouth of the river every one with the exception of myself had an attack of fever, viz, two officers and twelve men. The gig's crew were attacked there for the first time, the others were all secondary attacks. The mouth of the river, however, was not to blame, for none of the brig's crew, or of those we left on board of her, in all twenty men, ever had a single attack of fever. They had no quinine as a prophylactic, and had been lying in the same place for two months. The wind was from seaward the whole time, which I believe was their safeguard. On board the ship there was no increase of sickness till the 7th of March. Individual cases of fever had occurred, but the principal part of the sick list consisted of diarrhœa and slight surgical cases, On the 6th, however, it blew a heavy gale with constant rain ; every one on board got wet; the gale lasted for several days, and on the 7th and 8th twenty-nine cases of fever were added, and before the end of the month only six out of the fifty-four who had gone up the Zambesi escaped an attack. Of thirty-nine persons who were thirty-two days in the river, thirty-four had fever; and of fifteen

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fifteen who were sixty-one days in the river, fourteen had fever. This certainly was a greater amount of sickness than I had expected, and is a decided proof of the malarious nature of the river. The thirty-nine men never went beyond Shuponga. They had three grains of quinine every morning with wine, a gill of spirits for the first seventeen days, afterwards half a gill. They had plenty of provisions till within a few days of their return to the ship; but then, for four or five days, they were obliged to be on short allowance. The weather was exceedingly propitious; very little rain fell; still, on two or three occasions, it was found to be impossible for all of them to sleep dry. Our greatest enemies, however, were the mosquitoes. It was quite impossible to sleep without mosquito curtains; the men's rest was consequently disturbed; the irritation was excessive; from sunset to sunrise the annoyance was constant, and to that I attribute a great deal of the susceptibility to fever. The few days' short allowance was also to their disadvantage. The fifteen who went further, and of whom fourteen had fever, had much more exposure than the others. They also had quinine every morning, and had no scarcity of provisions, though without spirits for three weeks. They had to work very hard, had less protection than the others from mosquitoes, so that they preferred, if possible, to go on during the night, to remaining at anchor. They had to remain several nights in the marshes of the Shire, and from their broken slumbers from mosquitoes and their exposure to the dews at night were as fairly subjected to the malarious poison as it was possible for men to be. One boat's crew only passed through one marsh, yet before they turned back three of them had fever, and a few days afterwards all were attacked. These were amongst the worst cases we had. The gig's crew again went through two marshes, had a land journey of six days, and were fifteen days longer on the Shire; still not one of them had fever till their return to the Pioneer, when all their work was over and they were comparatively idle. The only way I can account for their escaping so long was the fact of their being younger men than the other boat's crew, and also not having been exposed to a three days' wood-cutting before starting, as the whaler's crew was. Even when they were attacked also, the cases were not so severe as those in the other boat. . . . All these cases occurred while the men were using quinine as a prophylactic, in doses of three grains daily, the same as Dr. Livingstone has always used, and which was as much as my stock of quinine could afford. I regret much, however, that

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that I could not give the full dose, eight grains a day, as it was such an excellent opportunity to try the efficiency of the remedy. But I doubt much its efficacy when it has to be continued so long, for in the Pioneer there are one or two men who have been in the habit of taking daily enormous doses of quinine, from ten to twenty grains; and these have suffered from the disease quite as much as the others. . . . Now with regard to the fever itself, so fatal to some persons and so innocuous to others, we have seen that, though taking quinine regularly every day, only six out of fifty-four escaped it; not one of the Pioneer's crew, nor of the ladies, escaped it, making the total number of attacks seventy-three out of seventy-nine within two months. This is an enormous amount of sickness, and shows what a hotbed of malaria this part of Africa is. Many of those cases were very severe, attended with delirium and extreme prostration; yet we have not lost a single man. As yet the average time on the list is seven days; but there are several on the list who have been three weeks, and are still far from recovery. Occasionally a patient is at duty on the third or fourth day, but I have found that very rare. The convalescence is generally protracted, headache and weakness remaining after all febrile accessions are stopped. When a man is attacked he generally complains of languor, pains in his limbs, frequent chills, and occasional headache for one, two or even three days. He loses his appetite also. He may then have a distinct rigor, but more generally he merges gradually into the hot stage, with a most violent headache, quick pulse, white tongue, and pain in the back. Profuse perspiration follows, and the patient is relieved. His headache is a little easier, but his pulse remains quick, and the other symptoms are only ameliorated, not removed. Remission after remission would follow in this way, each one worse than its predecessor, unless the remedies are quickly applied. The premonitory symptoms are often very marked, but are also often absent. An old patient can often tell when an attack is coming on, sometimes even two or three days before, but even then, though the severity of the paroxysm may be lessened by large doses of quinine, it is seldom it can be warded off. The headache in first cases is always very severe, often attended with delirium; it is usually among the first symptoms, and is the last to disappear; even when all febrile symptoms have disappeared, and there has been no accession for days, giddiness remains, and periodical accessions of headache. The tongue is usually white, sometimes

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times swollen and furred, with marks of teeth on the edges, but in some cases it is clean; vomiting is very common, and a very annoying symptom it is, as it must first be allayed before there is any chance of the quinine being retained. The bowels are usually confined; diarrhœa does occur, but in very few instances; there is evidently a want of secretion of bile, sometimes even tenderness in the region of the liver, and, when the disease has lasted some days, always a sallowness of the complexion, and even in some cases a yellowness of the conjunctiva. It is to counteract this state that a cathartic of jalap and calomel is usually given at the commencement, and a most successful practice it is, as it stimulates the liver and relieves the primæ viæ, preparing the way for the absorption of quinine. The spleen is often affected, and as a sequela of the fever enlargement of that organ is extremely common. The kidneys appear also sometimes to suffer. The patient always complains of a pain in the back, which appears to be muscular, but there is often a deep-seated pain, accompanied with high-coloured urine, evidently referable to the kidneys. When I have observed this symptom the cases were always very severe; it is also a common thing to have the urine loaded with bile during recovery. Another peculiar symptom is sometimes present, and a very distressing and alarming one it is, viz., violent fluttering action of the heart, accompanied in some instances with an anæmic bruit with the first sound. These cases also are liable to faintings, and have to be narrowly watched, as they cannot assume the erect posture without risk of syncope. The paroxysm itself assumes every kind of irregularity. There are cases where there is a distinct rigor, hot, and sweating stage, but these are the exception rather than the rule, and are rarely indeed marked in the first paroxysm. There may be alternate hot and cold stages for twenty-four hours, or the patient may be chilly for the whole of that period, but he will have no relief until a sweating stage is induced; or again there may be no cold stage, or only a very short one, the mere feeling of a current of air rushing down the back. Frequently the first paroxysm is irregular, and the second quite distinct in all its stages. There is no mistaking the disease however; it will always assume its remittent form, and become more marked as it proceeds.

"The above description refers more particularly to what I would call the sthenic form of fever, but there is a form which may justly be called asthenic. It is well exemplified in some of the Pioneer's crew, and occurs to those who have had

had the fever repeatedly. The paroxysm assumes no regular form; there may be no cold stage, or no sweating stage, or there may be merely a feeling of languor and headache, and quick pulse. The tongue may even remain healthy throughout; indeed, it is in those cases that the clean tongue is usually seen, but it may range from this to a typhoid character. The accessions, however, are easily noticed, though each paroxysm may vary from the one preceding it. Headache even is not a constant symptom with them; they may have all the stages of a paroxysm well marked, without suffering more than a little giddiness. These men are never long off duty, but they always look sickly; they are continually taking large doses of quinine, without warding off the disease.

"Among the sequelæ of this fever, the most general are enlargement of the spleen and œdema of the feet and ankles. The former I have seen in many cases. It may happen during the attack, but continues a long time after it. It is often attended with acute pain, simulating pleurisy. The œdema of the feet is generally noticed in a patient who has had several attacks, and appears as he is recovering. It depends, I consider, on anœmia. In one case, that of a quartermaster, æt. 54, in addition to the œdema, erythematous blotches appeared on the leg, running into each other, and soon converting the whole surface into one mass of erythema, or rather more resembling phlegmonous erysipelas. This state commenced with pain and itching in both knees, and the redness was greatest round those joints, but covered the whole leg, and half the thigh. In two or three days vesicles formed on the reddened surface, and were attended with much itching. A cooling lotion soon gave relief, but this state of things remained about a week, all febrile symptoms having previously disappeared. I may also mention that this œdema of the feet has been noticed in the Europeans of Dr. Livingstone's expedition always during the rainy season, without any urinary affection, or any immediately preceding attack of fever. Ulcers are also common, and most difficult to heal, being always inclined to slough. When these sequelæ do occur the convalescence is slow.

"Of the treatment very little need be said. A cathartic to gently move the bowels and stimulate the liver, and followed by quinine to induce cinchonism, is the rationale of the cure. Where there is great irritability of stomach, that must be allayed before quinine need be given. Effervescing draughts, small

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small doses of opium, and a sinapism to the epigastrium I have found the most efficacious. Where there is much sleeplessness, a not uncommon symptom, and caused by the severe headache, a dose of morphia is of the greatest advantage. Sleep is induced, and the patient wakes up quite refreshed, with a cool skin, and most of the head symptoms gone. Large doses of quinine are required, and I always gave it a few hours after the aperient, without any reference to the stage of the fever, the only contra-indication being the possibility of retaining it. Ephemeral and intermittent fevers are also to be met with in the Zambesi, but none occurred among the men under my charge. In one or two instances the disease commenced as an intermittent, but always ended in the remittent type."

This exceedingly interesting and valuable account of the remittent fever of the Zambesi may be accepted as applicable to this form of fever as it appears in all the African and intertropical rivers generally. The sequelæ will as a rule be light or grave according to the age or habits, or constitution of the patient, and the length of exposure to the malarial influence.

The assistant surgeon * of the Gorgon makes the following observations in his Journal in connection with this part of the station: "Our experience seems to warrant the conclusion that a ship stationed on the East Coast of Africa and Mozambique Channel may expect to visit every port and harbour of the coast without contracting either fever or dysentery, if, as in the case of the Gorgon, her decks be spacious and ventilated by large ports, if she be able to condense water so as never to water from the shore, and if her crew be not exposed in long-boat cruizes.

"2d. That the danger to which the men are exposed in boat cruising, though it will certainly involve some cases of fever, and must severely try the constitutions of the weaker men, is much lessened by avoiding night anchorages in rivers, or sleeping on shore.

"3d. That boat expeditions up rivers, as that of the Gorgon's boats in March 1862 up the Zambesi, involves danger of a different nature, and exposure to an inevitable morbific influence of a kind peculiar to these rivers."

There

* Assistant Surgeon C. P. Mulvaney, B.A.

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There were sixty-seven cases of primary fever in the Orestes, twenty-six of which were of an ephemeral nature. The average duration of each of the more severe cases on the sick list was about seventeen days, while the ephemeral form of fever only confined the patient to the list for about three days and a half. As in the Gorgon, many of the cases of remittent fever that occurred in this ship, were attributable to exposure in the River Zambesi.

The cases of fever in the Ariel and Narcissus were, for the most part, attributable to exposure in the Mozambique Channel. In the returns of the latter vessel there appear twenty-five cases of primary fever, twenty of which occurred in the Michaelmas quarter, and are entered under the head of febricula. They made their appearance fourteen days after the departure of the vessel from the Seychelle Islands. The average duration of each man on the sick list was rather more than ten days, so that the fever was more protracted than usually obtains in simple ephemeral fever. There were a few cases of ephemeral fever in the Rapid which had just arrived on the station. They were of little importance, and only kept the patients on an average, four days on the sick list.

Diseases of the Alimentary Canal.—There is a very considerable increase in the ratio of cases under this head, but the mortality is much less than occurred in the preceding year. The only fatal case in fact was one of cholera, which occurred on board the Orestes, and is attributable to exposure to infection at Port St. Louis, Mauritius, where the disease was epidemic at the time the vessel was there. The appearance of this virulent disease on board the Orestes at this time is interesting, in connection with an epidemic which appeared at the same time on board a transport conveying invalids from China, and caused great mortality, and which will be referred to in connection with this disease on that station. It is also interesting from the fact that it appears probable that the disease was conveyed by this vessel to Pomoney, on the Coast of Africa. The Orestes arrived at Port St. Louis, Mauritius, on the 21st of January in the middle of the rainy and hurricane season. Cholera was reported to be epidemic in the island and town, but not of a severe character. The ship's company were given three days' leave, with orders that they should sleep on board at night, but these orders do not seem to have been very carefully complied with. The majority

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majority of the men, the surgeon* says, remained on shore till the expiration of their leave. A few days after this there had been great atmospheric disturbance, and a hurricane passed to the northward of the island. Cholera increased rapidly on shore, twelve soldiers are said to have died on the 28th, and the disease spread among the coloured population. The disease was attributed to the bad quality of the water supplied to the town, in consequence of the heavy rains washing down every kind of impurity into it. On that day a petty officer was brought on board in a state of semi-collapse from purging, nausea, and violent cramps of the muscles of the abdomen and extremities. He recovered and was discharged to duty on the 2nd of February. On the same and following days, diarrhœa was common among the liberty men, the symptoms being chiefly bilious vomiting and purging.

On the 30th of January the Orestes sailed from the Mauritius, and after touching at Tamatave in Madagascar, arrived at Pomoney on the 8th of February; both these places were quite healthy at the time. On the day following the arrival of the vessel at Pomoney, a marine was attacked with cholera. He had been labouring under diarrhœa during the previous day, for which he received some medicine, which had benefited him a good deal. When seen after being attacked with cholera, he was found to be in great agony, suffering from cramps in the bowels and extremities, with constant purging and vomiting, the evacuations being of the characteristic rice-water character. This man ultimately recovered, but was not discharged to duty until the 17th of March. In the meanwhile another marine, who was employed as a nurse upon him, was seized with cholera on the 15th of February, and died on the following day. While at Pomoney the ship's company were much on shore.

The Orestes returned to Port Louis, Mauritius, after leaving Pomoney, and found that during her absence cholera had increased very much in that town and in the island generally, the deaths ranging from thirty to sixty daily. After being kept in quarantine for some time, she sailed for Johanna, in the Mozambique Channel, and on her arrival there, heard that

* Surgeon C. E. Playfair.

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that immediately after her departure from Pomoney cholera had broken out, and shortly afterwards in Johanna, where it carried off a large number of people. "It was supposed," the surgeon says, "that the cholera had been brought to Johanna either by us or by the Penguin, which vessel arrived from the Mauritius shortly after us, having been in search of us; she had only stayed a few hours at Port Louis to coal, and had not any cases of cholera on board." On the arrival of the Penguin at Pomoney, it appears that two kroomen, who were employed coaling her, being seized with cholera on board, went on shore and there died. Other cases occurred in the immediate neighbourhood where these men had been, and from thence it spread all over the island of Johanna. It is to be regretted that not a single remark is made in the quarterly nosological returns of the Penguin with reference to the cholera, which was prevailing at Port Louis while she was there. At Pomoney twenty-five deaths were reported by the consul, who stated that the disease was generally unattended with pain.

Dysentery.—There were thirty-six cases of this disease altogether, eighteen of which appear in the returns from the Ariel, fourteen from the Orestes, and two each in the Gorgon and Narcissus. In the Ariel the disease seems to have been imported into the ship by a cargo of slaves. In his journal, the surgeon* says: "One hundred and sixty slaves were received on board the ship in the course of the month of April, for conveyance to the Seychelles. As there was some dysentery amongst them, the complaint spread to our men, notwithstanding all possible precautions to prevent it, but the cases were fortunately so slight, that only a very small proportion required a place on the sick list, and these readily yielded to the ipecacuanha and opium treatment. The administration of ipecacuanha in scruple doses, combined with a small quantity of opium or laudanum (a sinapism being previously applied to the epigastrium), and repeated every three or four hours in similar or smaller doses, has proved singularly successful in all the acute dysenteric cases which have occurred on board since the ship has been on the station, hardly any presenting themselves which were not speedily cured by it. In chronic cases it is also of much value, where it

* Surgeon James Sproule.

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it is not contra-indicated by the presence of great debility." The treatment of each case seems to have averaged from six to eight days.

In the Orestes the disease was of a much more severe character, the treatment of each case averaging about thirty-eight days. One-half of the cases occurred during the Christmas quarter, when the ship was at the Mauritius. The vessel remained there a month, during which time the men were allowed leave twice, for four days on each occasion. On the whole they appear to have behaved very well, but during the latter part of their stay the ship's company became sickly, diarrhœa and dysentery being very prevalent on board; this the surgeon attributed chiefly to the water procured from the shore, the same effect having been produced on a former occasion. That it was not altogether due to excesses on shore, he thinks proved by the fact that several men were affected who had not been out of the ship.

Diseases of the Genito-Urinary Organs.—The ratio of venereal diseases this year is even greater than it was in 1861, although during that year they existed to a much greater degree than usual. Sixty-two cases altogether of syphilis were under treatment, of which thirty-seven appear in the returns from the Narcissus. This ship, it may be remembered, suffered severely during the previous year from this disease, and in the present year many of the cases were of the secondary form. The surgeon, in the remarks to his nosological return for the Midsummer quarter, says: "At Simon's Bay, cases of primary syphilis have hitherto been rare. Unfortunately the sores are in most cases connected with induration, and invariably followed by secondaries, whether mercury has been given or not."

In the Gorgon, in which there were fifteen cases of syphilis, one-third of the disease was contracted at Tamatave, in Madagascar. With reference to these cases, the medical officer* makes the following remarks: "There have been a few cases of syphilis contracted at Tamatave, but so slight and easily cured as not to require entry on the sick list. They were all of the soft, suppurating, and non-infecting species. Of these seven appear in the return, being cases of inflamed sores, produced by neglect and want of cleanliness. It is remarkable that constitutional syphilis seems to be unknown, not merely at Tamatave, but up the country and at

at Antananariso. Yet the Rimerisi, or prostitute class, at Tamatave compose almost the whole female population; and among no people can morality be less regarded than the Hovas and Betsi masaraka."

Of the eight cases of syphilis that appear in the returns from the Orestes, six were contracted at Simon's Town or Cape Town.

Wounds and Injuries.—A man died from the effects of numerous severe sabre wounds inflicted on him by the crew of a piratical prize Dhow of which he was in charge. A stoker was killed by falling amongst machinery in motion. Two kroomen were killed by a mass of earth falling upon them while they were employed building a sea-wall. A bombardier of the Royal Marine Artillery was killed by an Armstrong 100-pounder gun falling upon him. The ship was rolling heavily, and he was employed securing the gun, when its weight overpowered the men; they lost all control over it, this unfortunate man slipped underneath, and the whole weight of the gun fell on the lower portion of his body, fracturing the pelvis. Death ensued in an hour and a half. A cutter and a whaler's boats crews, consisting of one officer, twelve seamen, and two marines, were massacred at Bareda, in the Arabian Gulf, by Somalis, to whom they had applied for goats and water. A seaman and a marine were drowned by the capsizing of a boat in crossing a sand-spit at the Mauritius, and a seaman was drowned in the Mozambique Channel by the upsetting of a boat in crossing a bar. The total number of deaths from all causes throughout the year was twenty-eight; of these twenty-three were from wounds and injuries, and drowning, and five from disease; the former being in the ratio of 19·4 per 1,000, and the latter of 4·3, the mortality altogether being in the ratio of 23·7 per 1000 of mean force, an increase as compared with the preceding year, but altogether attributable to the melancholy catastrophe in connexion with the murder of the two boats' crews. But for that casualty, the mortality this year would have been unprecedentedly small.

Invalided.—Three men were invalided for the sequelæ of fever; one for ague; four for affections of the brain and nervous system; three for diseases of the respiratory organs; three for

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diseases of the organs of circulation; four for dysentery; three for inflammatory affections of the liver; one for syphilis; four for rheumatism; one for diseases of the bones and joints; one for amaurosis; one for boils; two for ulcers; one for chronic dyspepsia; five for wounds and injuries; and one for the effects of poisoning by chloride of zinc; the total number invalided being thirty-eight, or in the ratio of 32·2 per 1,000 of mean force, an increase of about 1· per 1,000, as compared with the preceding year.

Table, No. 1.

Showing the Number of Cases of all Diseases and Injuries, and the Number Invalided and Dead, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	248	210·1	3	2·5	—	—
Intermittent Fever	182	154·2	1	·8	—	—
Epilepsy	4	3·3	1	·8	—	—
Paralysis	1	·8	1	·8	1	·8
Insanity	-	-	1	·8	—	—
Delirium Tremens	7	5·6	—	—	—	—
Headache, &c.	14	11·8	1	·8	—	—
Inflammation of the Lungs and Pleura	18	15·2	2	1·6	—	—
Phthisis and Hæmoptysis	4	3·3	1	·8	1	·8
Influenza and Catarrh	241	204·2	—	—	—	—
Cynanche	68	57·6	—	—	—	—
Functional and Organic Disease of the Heart	9	7·6	2	1·6	2	1·6
Hæmorrhoids	2	1·6	—	—	—	—
Varix	2	1·6	1	·8	—	—
Inflammation of the Stomach and Bowels	4	3·3	—	—	—	—
Dysentery	36	30·5	4	3·3	—	—
Diarrhœa	330	288·1	—	—	—	—
Cholera	2	1·6	-	-	1	·8
Constipation and Colic	40	33·8	—	—	—	—
Inflammation of the Liver	4	3·3	3	2·5	—	—
Jaundice	2	1·6	—	—	—	—
Inflammation of the Bladder and Kidneys	1	·8	—	—	—	—
Syphilis	62	52·5	1	·8	—	—
Gonorrhœa	21	17·7	—	—	—	—
Orchitis	25	21·1	—	—	—	—
Stricture	6	5·	—	—	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Rheumatism	143	121·1	4	3·3	—	—
Disease of the Bones and Joints	8	6·7	1	·8	—	—
Ophthalmia	27	22·8	—	—	—	—
Amaurosis and Cataract	1	·8	1	·8	—	—
Otitis and Deafness	7	5·9	—	—	—	—
Erysipelas	6	5·	—	—	—	—
Scrofula	4	3·3	—	—	—	—
Bubo (*Symp.*)	23	19·4	—	—	—	—
Phlegmon and Abscess	562	476·2	1	·8	—	—
Ulcer	178	150·8	2	1·6	—	—
Psora	2	1·6	—	—	—	—
Eruptions, &c.	26	22·	—	—	—	—
Dyspepsia and Debility	96	81·3	1	·8	—	—
Dropsy	1	·8	—	—	—	—
Worms	3	2·5	—	—	—	—
Cancer	1	·8	—	—	—	—
Wounds and Injuries	552	467·7	5	4·2	20	16·9
Burns and Scalds	16	13·5	—	—	—	—
Drowned	-	-	-	-	3	2·5
Poison	1	·8	1	·8	—	—
TOTAL	2,990	2533·8	38	32·2	28	23·7

TABLE, No. 2.

SHOWING the Number of DAYS' SICKNESS from each DISEASE, and from INJURIES, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	2,565	712	3,277	8·9	7·5
Intermittent Fever	1,095	130	1,225	3·3	2·7
Epilepsy	29	211	240	·6	·5
Paralysis	92	—	92	·2	·1
Insanity	—	44	44	·1	—
Delirium Tremens	94	54	148	·3	·2
Headache, &c.	104	74	178	·4	·3
Inflammation of the Lungs and Pleura	499	588	1,087	2·9	2·4
Phthisis and Hæmoptysis	155	963	1,118	3·	2·5
Influenza and Catarrh	1,520	181	1,701	4·6	3·8
Cynanche	442	21	463	1·2	1·
Functional and Organic Disease of the Heart	191	49	240	·6	·5
Hæmorrhoids	15	—	15	—	—
Varix	34	—	34	—	—
Inflammation of the Stomach and Bowels	67	101	168	·4	·3
Dysentery	876	256	1,132	3·1	2·6
Diarrhœa	2,225	597	2,822	7·7	6·5
Cholera	37	—	37	—	—
Constipation and Colic	189	53	242	·6	·5
Inflammation of the Liver	204	41	245	·6	·5
Jaundice	29	—	29	—	—

TABLE, No. 2.—Showing the Number of Days' Sickness from each Disease, &c.—*cont^d*.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	73	- -	73	·2	·1
Syphilis	1,232	858	2,090	5·7	4·8
Gonorrhœa	267	19	286	·7	5·9
Orchitis	387	309	696	1·9	1·6
Stricture	215	267	482	1·3	1·1
Rheumatism	2,119	512	2,631	7·2	6·1
Disease of the Bones and Joints	118	125	243	·6	·5
Ophthalmia	262	78	340	·9	·7
Amaurosis and Cataract	14	59	73	·2	·1
Otitis and Deafness	38	188	226	·6	·5
Erysipelas	46	- -	46	1·2	·9
Scrofula	102	- -	102	·2	·1
Bubo (*Symp.*)	663	- -	663	1·8	1·5
Phlegmon and Abscess	4,710	154	4,864	13·3	11·1
Ulcer	3,852	801	4,653	12·7	10·7
Psora	14	124	138	·3	·2
Eruptions, &c.	549	373	922	2·5	2·1
Dyspepsia and Debility	812	433	1,245	3·4	2·8
Dropsy	145	- -	145	·3	·2
Worms	54	- -	54	·1	—
Cancer	42	- -	42	·1	—
Wounds and Injuries	5,661	1,485	7,146	19·5	16·5
Burns and Scalds	205	6	211	·5	·4
Hernia	- -	32	32	—	—
Poison	96	- -	96	·2	·1
TOTAL	32,138	9,898	42,036	115·	97·3

TABLE, No. 3.

SHOWING the Number INVALIDED from each Ship employed on the CAPE OF GOOD HOPE Station.

CAUSE of INVALIDING.	Ariel.	Gorgon.	Narcissus.	Orestes.	Rapid.	Seringapatam.	TOTAL.
Continued and Remittent Fever	–	2	1	–	–	4	3
Intermittent Fever	–	1	–	–	–	–	1
Epilepsy	–	–	–	–	1	–	1
Paralysis	–	–	–	1	–	–	1
Insanity	–	1	–	–	–	–	1
Vertigo	–	–	–	1	–	–	1
Inflammation of the Lungs	–	–	2	–	–	–	2
Phthisis	–	–	1	–	–	–	1
Disease of the Heart	1	–	1	–	–	–	2
Varix	–	–	–	1	–	–	1
Dysentery	2	1	1	–	–	1	4
Disease of the Liver	2	–	–	1	–	–	3
Syphilis	–	–	–	1	–	–	1
Amaurosis	–	1	–	–	–	–	1
Deafness	–	–	–	–	–	1	1
Rheumatism	1	2	–	1	–	–	4
Disease of the Bones	–	–	1	–	–	–	1
Abscess	–	1	–	–	–	–	1
Ulcer	1	–	1	–	–	–	2
Debility	–	1	–	–	–	–	1
Wounds and Injuries	3	1	–	1	–	–	5
Poison	–	–	–	1	–	–	1
TOTAL	10	11	8	8	1	6	38

TABLE, No. 4.

SHOWING the Number of DEATHS in each Ship employed on the CAPE OF GOOD HOPE Station.

CAUSE of DEATH.	Ariel.	Gorgon.	Narcissus.	Orestes.	Penguin.	Rapid.	Seringapatam.	TOTAL.
Paralysis - - -	–	1	–	–	–	–	–	1
Phthisis - - - -	–	1	–	–	–	–	–	1
Disease of the Heart -	–	–	2	–	–	–	–	2
Cholera - - - -	–	–	–	1	–	–	–	1
Wounds and Injuries -	1	1	2	1	15	–	–	20
Drowned - - -	–	–	–	2	–	1	–	3
TOTAL - - -	1	3	4	4	15	1	–	28

TABLE, No. 5.

SHOWING the Names of the SHIPS; the Average Complements and the Mean Force; the Total Number of Cases in each Ship; the Total Number of Days' Sickness on Board; and the Average Number of Men Sick Daily.

C. Commissioned.

NAME of SHIP.	Number of Guns, Horse Power, &c.	Period.	Average Complement.	Mean Force of each Ship.	Number of Cases.	Number of Days' Sickness on Board.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force of each Ship.	Number discharged to Hospital.
Ariel - -	9 Sc. - 60	year	105	105	252	2,474	6·7	63·8	5
Gorgon - -	6 P. W. 320	year	180	180	638	6,046	16·5	91·6	19
Narcissus - -	39 Sc. - 400	year	530	530	1,130	12,135	33·2	62·6	31
Orestes - -	21 Sc. - 400	year	265	265	729	10,505	28·7	108·3	17
Penguin - -	5 Sc. - 80	year	70	70	150	2,113	5·7	81·4	6
Rapid - C.	11 Sc. - 150	3 mo.	130	30	91	649	1·7	56·6	2

TABLE, No. 6.

SHOWING the Number of Cases of all DISEASES and INJURIES in each Ship employed on the CAPE OF GOOD HOPE Station.

DISEASE OR INJURY.	Ariel.	Gorgon.	Narcissus.	Orestes.	Penguin.	Rapid.	TOTAL.
Continued and Remittent Fever	21	130	25	67	–	5	248
Intermittent Fever	6	141	2	30	3	–	182
Epilepsy	–	–	1	2	–	1	4
Delirium Tremens	–	–	1	6	–	–	7
Paralysis	–	–	–	1	–	–	1
Headache, &c.	–	2	5	–	3	4	14
Inflammation of the Lungs and Pleura	1	7	3	5	–	2	18
Phthisis and Hæmoptysis	–	3	1	–	–	–	4
Catarrh	17	34	92	65	27	6	241
Cynanche	1	–	44	16	6	1	68
Functional and Organic Disease of the Heart	1	–	4	3	1	–	9
Hæmorrhoids	–	1	1	–	–	–	2
Varix	–	–	–	1	1	–	2
Inflammation of the Stomach and Bowels	a1	1	1	1	–	–	4
Dysentery	18	2	2	14	–	–	36
Diarrhœa	18	91	79	125	15	2	330
Cholera	–	–	–	2	–	–	2
Constipation and Colic	1	6	3	21	2	7	40
Inflammation of the Liver	1	–	1	2	–	–	4
Jaundice	–	–	2	–	–	–	2
Inflammation of the Kidneys and Bladder	–	–	–	–	–	1	1
Syphilis	1	15	37	8	1	–	62
Gonorrhœa	3	2	12	2	2	–	21
Orchitis	1	5	12	2	1	4	25
Stricture	1	1	1	3	–	–	6
Rheumatism	24	30	45	29	12	3	143
Disease of the Bones and Joints	–	5	1	–	2	–	8
Inflammation of the Eyes	–	3	17	5	2	–	27
Amaurosis and Cataract	–	1	–	–	–	–	1
Otitis and Deafness	–	2	5	–	–	–	7
Erysipelas	6	–	–	–	–	–	6
Scrofula	–	1	3	–	–	–	4
Bubo (*Symp.*)	3	1	15	4	–	–	23
Phlegmon and Abscess	56	49	299	103	19	36	562
Ulcer	22	41	53	52	10	–	178
Psora	–	–	2	–	–	–	2
Eruptions, &c.	–	–	16	8	–	2	26
Dyspepsia and Debility	6	12	56	7	14	1	96
Dropsy	–	–	1	–	–	–	1
Worms	–	–	1	2	–	–	3
Wounds and Injuries	42	50	277	139	28	16	552
Burns and Scalds	1	2	9	3	1	–	16
Cancer	–	–	1	–	–	–	1
Poison	–	–	–	1	–	–	1
TOTAL	252	638	1,130	729	150	91	2,990

a Hæmatemesis.

EAST INDIAN AND CHINA STATION.

East Indian and China Station.

THIRTY-ONE vessels were employed on the East India and China Station during the year 1862, with a mean force, corrected for time, of 3,570 men. Four of these vessels were employed on surveying duties, one was a hospital ship at Shanghai, one was a receiving ship at Hong Kong, one was a storeship, and two were troopships. Of the vessels employed in the ordinary duties of the station, there were six frigates, two of these being of the fourth rate, one of the fifth rate, and three sixth rates. There were four sloops, nine gun-vessels, two small paddle-wheel steamers, and one gunboat. The periods for which the returns from the various vessels are rendered varies from three months to twelve. The healthiest ships were the Manilla, the Scout, and the Coromandel; the most sickly the Ringdove, the Pearl, and the Cormorant. During the greater part of the year the Manilla was stationed in the Gulf of Pecheli, occasionally visiting Shanghai. The Scout was chiefly employed in the East India Archipelago, and the Coromandel was stationed at Chifu, Shanghai, and Ningpo. During the Midsummer and Michaelmas quarters, the Ringdove was a good deal employed in river service, being stationed for a considerable period in the River Ptsikei, about thirty miles beyond Ningpo, surrounded by rice-swamps, and girt in by high ranges of hills. There the heat being very great, much sickness was contracted, and the ship's company seems to have been debilitated, and rendered prone to the reception of disease elsewhere, for on visiting Shanghai afterwards, where cholera was prevailing, that fatal disease was introduced into the ship, and there was a large amount of sickness from choleraic diarrhœa. During the last quarter of the year the vessel was in Japan. The Pearl was, excepting during the Michaelmas quarter, almost altogether stationed at Shanghai, where the ship's company suffered much from diarrhœa and cholera. During the first half of the Michaelmas quarter the vessel was in Japan. The sickness in the Cormorant was probably in a great measure dependent upon vicissitudes of climate to which the ship's company was subjected

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jected in the passage of the vessel to the station. The cases of sickness were not of much importance. This vessel only arrived on the station about the end of October.

By referring to Table 2, it will be seen that the loss of service from febrile diseases was equal to thirty-eight men daily, or in the ratio of upwards of ten per 1,000 of mean force; from diseases of the respiratory organs, it was equal to twenty men daily, or in the ratio of 5·4 per 1,000. From affections of the alimentary canal, the loss of service was equal to about seventy-two men daily, or about 20 per 1,000, which is nearly double the ratio of the preceding year. There was a daily loss of service equal to nearly six men, from hepatic disease, the ratio per 1,000 being 1·5; from diseases of the genito-urinary organs, the loss was equal to forty-seven men daily, or 10·1 per 1,000, attributable entirely to venereal diseases. The daily loss of service from rheumatism was in the ratio of 3·8 per 1,000; from diseases of the skin and cellular tissue, 18·1, 9 per 1,000 being from ulcers; from dyspepsia and debility, 2·9; and from wounds and injuries of various kinds, 10·9. The total number of men ineffective daily from disease, and wounds and injuries, was 330·5, which is in the ratio of 92·5 per 1,000 of mean force.

As shown in Table 1, the total number of cases of disease and injury amounted to 8,107. Of these 167 were invalided, and 237 died, the former being in the ratio of 46·7, and the latter of 66·3 per 1,000 of force. Compared with the preceding year, the rate of invaliding is much reduced, but the death-rate is enormously increased, the ratio for 1861 being only 26·1. This is almost entirely owing to the increased mortality occasioned by dysentery and cholera, and especially by the latter disease.

Fevers.—Seven hundred and seventy-one cases of primary fever were under treatment in the squadron during the year, the loss to the service from these diseases being one man invalided, and eight deaths. The total days' sickness on board ship and in hospital gave an average of about twelve days' treatment to each case. The ships which suffered most were the Impérieuse, the Encounter, the Euryalus, the Odin, the Ringdove, and the Pearl.

In the Impérieuse there were 163 cases of primary fever. Of these fifty-one were contracted during the Midsummer, and seventy-one during the Michaelmas quarters, when the vessel was stationed almost during the whole period in the Woosung

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Woosung river. With reference to the Midsummer quarter, the surgeon* makes the following observations: "During the whole of the quarter the officers and men were kept pretty constantly employed in the operations against the Taeping rebels—operations involving much fatigue and exposure, and of course consequent sickness. The expeditions were carried on sometimes by land, but more generally by water, and large parties of men were absent from the ship for periods varying from a couple of days to a fortnight at a time. Compared with the previous quarter the amount of sickness was large, not exceeding, however, so much in the number of new cases as in their nature, their tediousness, and their gravity. . . . . Of the three months, June was by far the most sickly. Catarrh, so common in April, had almost ceased; syphilis, on account of the stoppage of leave, could not be contracted; ulcers had become few and tractable, the tendency to sloughing having disappeared; but in the latter part of May and beginning of June other diseases made their appearance; these were fever, bowel complaints, and cholera. Fever and diarrhœa usually occurred in close connection with each other, so that in many cases it was difficult to determine by which name the disease should be designated. The fever was invariably periodic, and usually tedious, with constant tendency to relapse, leaving behind it most persistent debility." Elsewhere he says: "Simultaneously with diarrhœa and cholera, fever made its appearance. It always commenced with a periodic character, but in many cases lapsed into the continued form. Many of the cases were traceable to exposure and fatigue in the very harassing expedition against the Taepings. Up to this date (30th June) there has not been any fatal case; the resulting debility is, however, very considerable. Many suffered who had not been engaged in the operations, or, in fact, out of the ship; the locality in which the vessel lay was no doubt malarious. In the treatment quinine has been largely given, and with very great benefit; the occurrence of diarrhœa, however, in many instances, has tended much to render the case tedious. A man is put on the list with fever—quinine is given in the remission or intermissions; in a week the fever disappears, and he gets diarrhœa, this gets well, and the fever re-appears. It will require a long time to make many of these men serviceable."

In

* Dr. Joseph Henderson.

In the Michaelmas quarter one case terminated fatally, in the person of an ordinary seaman. He had been employed in the Naval Brigade against the Taepings. He complained at first of ordinary febrile symptoms of a well-marked periodic character, but accompanied almost from the very first with irritability of the bowels; he was also much harassed by sickness and vomiting, which he attributed to the quinine. About a fortnight after being placed on the sick list, confirmed diarrhœa was established with a good deal of abdominal pain; this was attended with rapid emaciation and great debility: the hands were tremulous, the voice weak and hesitating, the tongue dry and brown, and the pulse ninety-eight, small. As the disease progressed, the symptoms became aggravated: superadded to them was noisy, restless delirium, and he gradually sank exhausted. The following is the report of the autopsy: "The abdomen only was examined; all the viscera were in a normal condition, with the exception of the ileum, which was much diseased; the mucous membrane was very dark in colour; in some parts approaching to black; it was thickened, but not softened. Every patch of Peyer's glands was ulcerated. The mesentery was vascular, and the mesenteric glands were enlarged, softened, and infiltrated with blood."

The total days' sickness from cases of primary fever in the Impérieuse was 3,624, which gives an average of upwards of twenty-two days' sickness to each case.

Sixty-five cases of primary fever appear in the returns of the Encounter. Eighteen of these were of an ephemeral nature. During the Michaelmas quarter, when two-thirds of the cases occurred, the vessel was stationed in the Ptsikei River and at Ningpo. Alluding to the sickness on board, and in reference to this locality, the surgeon* of the Encounter says that "almost the whole year was passed in narrow and muddy rivers, and for the most part at Ningpo between a dirty foreign and Chinese settlement on the one side, and a still more dirty Chinese city on the other. The city having been for many months occupied by the rebels (Taepings), who have an utter disregard for anything in the way of cleanliness or order, and pay not the smallest attention to the sanitary state of towns held by them, was in such a state of filth

* Surgeon Ahmuty Irwin.

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filth, the drains being blocked up, and nuisances committed in all directions, that when warm weather set in, the stenches were intolerable; and the whole atmosphere of the place became loaded with disease. Indeed, it appeared marvellous that the enemies which attacked in the shape of fevers and bowel complaints, did not add to the number of their victims. And here I may remark, that the diseases and deaths were not confined to the men-of-war in the river. The mortality amongst the merchant seamen was heavy; several ships within a few days losing a third of their crews; and the numerous funerals, as well as dead bodies to be found lying about in the back lanes and less frequented streets, bore testimony to the numbers of the native population who fell under the prevalent maladies. Of the river, which like all others, and more particularly in the vicinity of towns, is very filthy, and on the banks of which was exposed at low water a large surface of stinking mud to the blazing sun, nothing remains to be said beyond that its filth was added to much by the number of corpses which in a state of decomposition were floating to and fro with the tide, and lying rotting on the banks." . . . "In the month of July, about the 29th, the sick list being very large and increasing, the vessel was moved up the river some twelve miles with a hope that the change, if it could be considered a change, might be beneficial. There was at first a reduction in the sick list, and bowel complaints, which had hitherto been the most prevalent, in a great measure ceased; but in August, about the middle of the month, with the gathering-in of the paddy, a large number of cases of fever of various types occurred, and these continuing, the vessel returned to her anchorage off the Salt Gate at Ningpo."

The total days' sickness from the more severe forms of fever on board the Encounter, give an average of fourteen days on the sick list to each case, while the average duration of the ephemeral cases was about three days.

Fifty-three cases of primary fever appear in the returns of the Euryalus, but with the exception of eight, they were all of a trifling nature. There was no loss to the service, either by death or invaliding, from these affections. The treatment of each of the ephemeral cases averaged about six days, that of the more severe cases about three weeks. This latter form of fever occurred at a time when both cholera and dysentery were prevailing on board. With reference to this circumstance

stance, the surgeon* of the Euryalus has the following observations:—

"The first case of this complaint (remittent fever) appeared on the same day as that of dysentery, on the 2d of November at Shanghai. The disease was contracted during the expedition to Kahding. The first case, which was the most severe of any, was ultimately discharged to duty after having been thirty-six days under treatment; head symptoms were alarming in that case, and recovery was retarded by colliquative diarrhœa. The sheet anchor was quinine in five grain doses every three hours until the subsidence of the febrile accessions. The remaining relaxation of the bowels was subdued by combining tannic acid with the antiperiodic. It was remarkable how the different diseases which must have originated at Kahding, followed each other in succession in the same individual. . . . . An able seaman contracts choleraic diarrhœa on the 27th of October while returning from Kahding in the boats; he gets over that attack, and is convalescent, when dysentery supervenes on the 8th of November. On the 12th of that month he becomes very feverish; remittent fever has manifested itself, in fact. Here was one complicated case selected from many others of the same kind, which might with propriety be returned as choleraic diarrhœa, dysentery, or remittent fever, inasmuch as the symptoms of all these three diseases became successively developed; but as the febrile symptoms were the most enduring and the most urgent, the case has been returned under the head of remittent fever. This is not the first time that it has been my lot to witness cholera, paludal fever, and dysentery dovetailing, as it were, into one another. Is it possible that there can be two or three different kinds of poisons, possessing different periods of incubation, germinating in the human system at the same time, and becoming manifested in the order in which they relatively become matured? This disease was usually ushered in by rigors, followed by pungent heat of skin, accelerated pulse, and a glazed tongue, red at the point and edges, and parched; giddiness and sometimes delirium; gastric irritability and relaxation of bowels were also common concomitants. The great remedy in this as well as the other forms of paludal fever, after the primæ viæ had been cleared out, was quinine. I gave it in five grain doses every three hours, or in two and a-half grain doses every two hours, and ten grains immediately before the febrile accession which usually commenced with rigors. The latter generally became evinced from 11 a.m. to 1 p.m., during the day, and about 12 or 1 at night. When the head symptoms were imminent, leeches were applied to the temples, head shaved, blisters to the nape of the neck, and sometimes the scalp. When there was gastric irritability, bismuth, hydrocyanic acid, effervescing draughts and sinapisms were found of great service, but quinine was found to be indispensable."

The cases of ephemeral fever which occurred in this ship were attributable, in the opinion of the surgeon, to the imperfect

* Surgeon David Lloyd Morgan.

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perfect ventilation of the ship, and to exposure to the sun within the tropics. He states that 77·4 per cent. of those attacked were under twenty-five years of age.

There were 130 cases of primary fever in the Odin. Of these 119 are returned as cases of febricula, and the remainder were of the remittent type, contracted during the months of June and July at Trincomalee, and attributable, according to the surgeon* of the ship, to "the malaria arising from the surrounding country after very heavy falls of rain, so common there, as indeed everywhere on the coast of Ceylon, at certain seasons; enhanced by the exposure of the crew whilst at work in the dockyard to intense heat during sunshine, or otherwise to damp in rainy weather." The cases seem all to have been of a very tractable nature; the average period during which each of the more severe cases was under treatment being about twelve days, while the milder form of fever only averaged about five days on the sick list to each case.

Of the fifty-eight cases of primary fever which appear in the returns of the Pearl, only one seems to have been of any severity, and that had a fatal termination. The treatment of each of the other cases occupied only about seven days. In the fatal case death occurred on the twenty-second day. The patient, a marine, presented himself, complaining of headache and giddiness. During the progress of the case, there appears to have been a good deal of irritability of the bowels; delirium set in towards the end, and he became very deaf, but whether the deafness depended upon the disease or on the quinine which was freely prescribed, it is not easy to ascertain, as the case is not minutely detailed. The surgeon† returns it under the head of typhus, but the history of the case is more like that of hepatic abscess. Unfortunately there was no post-mortem examination of the body.

There were seventy-five cases of primary fever in the Ringdove, seventy-one of which occurred during the Michaelmas quarter, and are referrible to prolonged river service at Ningpo. The medical officer‡ thinks that the disease was mitigated by the administration of quinine as a prophylactic. The total days' sickness from all the cases gave an average of about six days' treatment to each, and no loss resulted to the service from them, either by death or invaliding.

Small-

* Dr. William Hoggan. † Surgeon F. F. Morgan.
‡ Assistant Surgeon J. C. Eastcott.

Small-pox.—There were fifty-eight cases of small-pox in the squadron, thirteen of which had a fatal termination.

Although this disease prevailed extensively at Shanghai in the beginning of the year, only one case appears in the returns of the Acorn, the depôt ship at that port. It occurred in the person of a corporal of marines, was confluent in its character, and terminated fatally. The eruption varied much in appearance during the progress of the case, resembling scarlatina at one time, and measles at another. It is not stated whether the man had been vaccinated or not.

There was also a single case on board the Algerine, which terminated fatally in the Naval Hospital at Hong Kong. The disease had been contracted on shore at that place, and the man had never been vaccinated.

Small-pox was prevailing at Point de Galle in the Island of Ceylon, in the beginning of the year, and a single case occurred on board the Beagle, while she was there. The person affected, a boy, had not been out of the ship, but it is conjectured that he had been infected by some of his shipmates who had been on leave, or by some of the natives who came alongside, or on board. On the vessel reaching Trincomalee, he was transferred to the Sapphire, temporary hospital ship, where the disease assumed the confluent form. He made a good recovery. It is not stated whether he had been vaccinated or not. The medical officer* procured vaccine lymph at this place, and vaccinated several of the ship's company, "but," he says, "I think the lymph did not take as it ought to have done, had the person been susceptible to its influence." The disease did not spread in the ship.

There were seven cases of small-pox in the Centaur, three of which terminated fatally. Six of the cases are referrible to infection received at Shanghai, where the disease was prevailing extensively both on shore and afloat amongst the men of war and in the merchant shipping, and one is said to have been contracted at Sunkeong. All leave to the ship's company had been stopped at Shanghai. With reference to these cases, the surgeon † of the Scout says: "The first man attacked (one of the carpenter's crew, vaccinated), had been employed on shore for some days, and had more than once visited a public house in a filthy and pestilential quarter of the

* Dr. Thomas Coghlan, Assistant Surgeon. † Dr. Henry Arnot.

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the European settlement occupied chiefly by Chinese Manillamen, and a low class of Irish and Americans with small-pox amongst them at the time. There, I believe, he became infected. On the arrival of the ship at Ningpo on the 12th of February, the eruption having appeared on him two days before this, he was at once removed to quarters on shore, previously occupied by small-pox cases from H.M.S. Scout, and there, the disease proving mild and modified, he soon became convalescent. This man belonged to No. 6 mess on the port side of the deck. The next case occurred on the 22d of February. It was that of an ordinary seaman belonging to the same mess. Vaccination in this case was doubtful. He was removed to the shore; the disease proved very severe and confluent, and he died rather suddenly on the 27th. A third case appeared in the same mess on the 26th; it was a very mild case of modified small-pox; he was away from the ship on duty when he became ill, and on the eruption appearing he was sent back to the ship on the 26th; the scattered pustules on the face and elsewhere had then fully maturated, and he was, in fact, convalescent. On the 25th another case occurred in a boy belonging to the mess on the opposite side of the deck; in this the fever was sharp, but the eruption very slight and modified. On the same day another case occurred in No. 4 mess, next to No. 6, that of an able seaman; and on the 27th another and the last case appeared in No. 2 mess, in the person of a boy. These two last were both severe cases of confluent small-pox, attended with very serious affection of the throat and air-passages, and ended fatally respectively on the 8th and 9th of March. To the fortunate circumstance of being able at once to remove those attacked, and keep them completely apart from the rest of the ship's company, the limitation of the disease to so small a number is no doubt to be ascribed." The case contracted at Sunkeong was a very mild one. Of these seven cases evidence of vaccination was distinct in four, one of whom died. In one fatal case marks of vaccination are said to have been doubtful, and in another no mention is made with reference to this point, neither is it stated of the man who contracted the disease at Sunkeong whether he showed any marks of having been vaccinated.

Two cases of small-pox occurred in the Encounter; both recovered. The men had been on leave on shore at Hong Kong, where the disease was prevalent. It is not stated whether they had been previously vaccinated or not.

Three

Three cases of small-pox appear in the returns from the Impérieuse, one of which had a fatal termination. They were contracted at Shanghai, and it is not said whether the men were vaccinated or not. The fatal case occurred in the person of a supernumerary attached to this vessel, but who belonging to the carpenter's crew, had been lent to the Ringdove. He contracted the disease at Shanghai, and died in the civil hospital at that place.

A single case occurred on board the Insolent at Chefoo, which terminated favourably, but whether the patient had been vaccinated or not is not stated; and a single case, having a fatal termination, occurred in the person of the servant of the Commander of the Manilla. He was a coloured man, and had not been vaccinated. The disease was contracted at Hongkong.

During the first quarter of the year five cases of small-pox occurred in the Pearl. Of these one seems to have been contracted at Hongkong, three at Shanghai, and one at Chefoo, which proved fatal. This last case occurred in the person of a carpenter's mate, who had been doing duty on board the Snake, where there had been several cases of this disease. He had been vaccinated. It is not stated whether the others were protected or not.

Four cases of small-pox appear in the returns from the Princess Charlotte, stationary ship at Hongkong, two of which terminated fatally. They were all vaccinated. With reference to these cases, the medical officer* says: "I had some time previously vaccinated every unprotected person on board, but, strange to say, each of the men who were attacked had well-defined marks on their arms. . . . . As the Chinese usually inoculate their children during the months of February and March, very little care being taken to isolate the cases, many persons contract the disease at that time."

Three cases of small-pox appear in the returns of the Reynard, all contracted at Shanghai, in the first quarter of the year. It cannot be ascertained whether the patients were protected by vaccination or not. They all recovered. A single case of small-pox occurred in the Ringdove at Shanghai; the man was sent to hospital, where he recovered. No mention is made as to whether he had been vaccinated or not.

There

* Assistant Surgeon J. V. N. Blake.

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There were sixteen cases of small-pox in the Scout, two of which had a fatal termination. These cases were a continuation of the epidemic which had appeared on board this vessel in the month of December of the previous year. It continued to spread until the 24th of January, when the last case occurred. The disease was contracted at Shanghai. Eight were severe cases of confluent small-pox. It is to be regretted that no mention is made in any of the returns as to whether any of these men affected by the disease had been previously vaccinated.

A single case of small-pox occurred in the Slaney at Shanghai. The man recovered. No notice is taken of his having been vaccinated or not.

Six cases appear in the Returns of the Snake, one of which terminated fatally. The fatal case occurred in a boy, who was vaccinated on the day before the accession of the disease. All the others had been previously vaccinated, and in all these the disease was modified.

Six cases of small-pox occurred on board the Vulcan. The disease appears to have been contracted at Hongkong in the first quarter of the year, but no information is to be obtained from the returns from this ship in connection with them.

The various returns show that all these cases of small-pox are referrible to the first quarter of the year, for, although ten of them appear in the returns of the second or Mid-summer quarter, they in every instance were traceable to infection contracted in the preceding quarter. This is interesting as showing how much the epidemics of this loathsome disease in China are dependent upon the pernicious custom so common amongst the Chinese, of inoculating their children at that season of the year.

Diseases of the Brain and Nervous System.—A fatal case of apoplexy, the result of intemperance, appeared in the returns of the Princess Charlotte. It occurred in the person of the ship's steward, who had served nearly five years in China, and had all along led a very dissipated life. Although rarely if ever seen actually drunk, he was constantly in a state of mental incapacity from repeated indulgence at all hours in small quantities of ardent spirits. He was found dead in bed in his cabin; and post-mortem examination of the body showed great congestion of the brain and its membranes, enlargement and fatty degeneration of the liver, and congestion

tion, in patches, of the mucous membrane of the stomach. It was supposed that having taken a larger quantity of spirits than usual before retiring to bed, he had fallen into a drunken sleep from which he never awoke. The body on being first seen, was lying in an easy, undisturbed posture.

There were five cases of delirium tremens under treatment in the squadron, two of which terminated fatally. One of the fatal cases occurred in the person of an officer of a remarkably nervous and excitable temperament, who seems to have been much affected by the occurrence of several deaths from cholera which took place on board the vessel in which he was serving. He became more than usually nervous, and very much depressed, and disposed to sit apart in a silent, moping condition. The symptoms of delirium tremens in this case were from the first of a very unfavourable character, terminating some time before death in violent convulsions. This officer had been in the habit of smoking to excess, and of taking stimulants freely.

Of the five cases, one occurred in an officer, two in seamen, one in a stoker, and one in a marine.

Diseases of the Organs of Respiration.—Four men were invalided for inflammatory disease of these organs, and one died; and for phthisical disease, fifteen were invalided, and nine died. This is a decrease as compared with the preceding year. The fatal case of inflammation of the lungs occurred in the person of a marine, who seems to have been liable to chest disease, having been under treatment three years previously for inflammation of the right lung. He was seized with febrile symptoms at the termination of a long march, during which he had become much heated. The inflammatory symptoms were from the first of a low type, and he sunk exhausted in about eight days. The right lung was the organ affected, and, on post-mortem examination, it was found to be partially solidified, and much congested posteriorly. The heart was enlarged, and the pericardium contained about two ounces and a-half of fluid.

Diseases of the Heart and Blood-vessels.—Two deaths are returned under this head. In one case, the immediate cause of death was rupture of the left ventricle of the heart. It occurred at Nanjaio, in the person of a marine who was serving in the Naval Brigade. He had been drinking, and subsequently having become much excited in altercation with some of the men, he suddenly dropped down dead. On

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post-mortem examination, the pericardium was found to be distended with blood; there was a rupture of the left ventricle near the origin of the aorta; the heart generally was in a state of fatty degeneration, and the liver was in a similar condition.

The other death occurred in the person of a warrant officer, who was under treatment for a severe attack of catarrh, from which he had for some time previously suffered. There was nothing, either in the rational or physical signs, in connexion with the heart to indicate that it was diseased. His symptoms were principally troublesome but infrequent cough, generally unattended with pain, and accompanied with scanty viscid expectoration. The respiration and the lung-sounds were normal. He was progressing favourably under the influence of tonic and expectorant remedies, when he was seized with dyspnœa, the pulse became weak, and the hands and feet cold, and despite stimulants, the application of warmth to the extremities, and other remedies, death took place in two hours. On post-mortem examination of the body, the following appearances were observed. In the sac of the pericardium, about an ounce of sero-sanguineous fluid. There were no adhesions or other signs of inflammatory action in connexion with the pericardium. "The heart was not enlarged, but it had a flabby appearance, and a firm unattached coagulum, one inch long, was observed in the right ventricle. From one extremity of this coagulum, which had the appearance of a fibrous cord, there proceeded a dark-looking prolongation, which was implicated in the tricuspid valve, and from the other extremity a process extended upwards of two inches into the pulmonary artery. The coagulum above-mentioned must, from its firm consistence, have existed for some time, but the morbid products attached to it were of recent formation, judging from the fact of their being easily broken up." The medical officer* in whose charge this officer was, is of opinion that, "in the absence of other organic changes, it is to their interference with the proper flow of the circulation that so rapid a termination to life is to be ascribed."

Diseases of the Alimentary Canal.—As compared with the preceding year, there is a very great increase in the proportion

* Assistant Surgeon George J. Sutherland, M.A.

tion of cases of these diseases, and unfortunately the increase extends to the mortality, which in consequence of the virulent character of the dysentery which prevailed in certain ships, and of the prevalence of cholera, was very great. From the latter disease alone the death-rate was 24·9 per 1,000 of mean force.

Two deaths from inflammation of the intestinal canal appear in the returns from the Odin. One was a case of gastro-enteritis, in which the fatal termination took place after two days' illness. It was characterised by pain in the epigastric region, increased on pressure, and accompanied with great thirst and constant vomiting. The pain rapidly extended over the abdomen; there was much anxiety of countenance, great restlessness, and the vomited matters at last were brown and offensive. After death, "the stomach was found to contain about two ounces of a dark-coloured fluid. Its internal coat was congested, and bore evidences of a high state of inflammation, was much softened and covered with a yellowish pus, and appeared deeply injected at both curvatures. The duodenum was stained with bile, and its coats slightly injected; the jejunum was also injected, and about twelve inches of the lower part of the ileum was of a purple colour; its coats were soft and friable, and a minute aperture, apparently of recent formation, existed at about three inches from the ileo-cæcal valve. The omental veins were congested. There was no effusion of serum or lymph in the cavity of the abdomen. The colon appeared healthy and perfectly empty, the liver was much congested, and the gall-bladder was distended with bile." In the other case, death resulted from peritonitis. The disease, in the opinion of the surgeon of the ship, was attributable to unavoidable exposure to atmospheric vicissitudes.

Dysentery and Diarrhœa.—In 1861, the ratio per 1,000 of mean force of cases of dysentery under treatment was 31·4, and of diarrhœa 256·. That was an exceptionably small ratio, however: the average ratio of cases of these diseases for the six years preceding 1862 is, of dysentery 71·, and of diarrhœa 344·1. In the present year the ratio of cases of dysentery is 74·2, and of diarrhœa 419·3.

The vessels which suffered most severely from these affections were the Centaur, the Encounter, the Euryalus, the Impérieuse

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Impérieuse, the Pearl, the Ringdove, the Sphinx, and the Vulcan.

Only seven cases of dysentery, and fifty-nine of diarrhœa appear in the returns from the Centaur; but as there were seven deaths from the former disease, and eight from the latter, in this ship, it is more than probable that many of the cases returned as diarrhœa were of a dysenteric character. The disease is attributable to exposure in the Woosung or Wongpoo River. The surgeon says: "Shortly after we were stationed up the Woosung River off Sun Keong, frequent cases of diarrhœa and dysentery began to appear. On arriving at that place (in the month of May) the greater part of the men were landed to assist in defending the city against the rebels who threatened it, and their duties for more than ten days were of a most harassing nature, and almost intermitting by day and night. Four of the five fatal cases occurred there, and numerous cases of fever and obstinate diarrhœa continued to occur as well as occasional cases of dysentery from that time forward. The men most affected were those who suffered most up the Yang-tse during the previous year. Other circumstances besides the service on shore no doubt contributed to impair the health of the men. Their diet, through unavoidable circumstances I believe, was not, for a length of time, calculated to counteract in any way, but rather to favour the injurious influence of climate and locality in lowering the tone of the system, impairing the digestive and other nutritive functions, thereby facilitating the inroads of disease, and afterwards aggravating its progress and results. After the hot weather set in, for some time fresh rations could only be procured and issued occasionally, sometimes without, at other times with a small quantity of vegetables, but more frequently salt meat, without any vegetables at all, could only be issued. Lime-juice was therefore issued daily while this state of things continued, irrespective of the nature of the rations. By the end of June, the health of all the men had become much deteriorated, and when it is considered that the force of the ship had by that time become reduced, by deaths, invaliding, and desertion, from 200 to 146, it will be believed that the most ordinary duties must have borne heavily on men in their condition and in such a climate. The sickliness engendered at this period continued to manifest itself by the occurrence of many severe cases of bowel complaint, fever, &c., and of frequent deaths up

up to the end of September, six weeks after the ship had left China."

In the Encounter, which during a large portion of the year was employed in river service, either at Canton or Ningpo, there were twenty-seven cases of dysentery, and seventy-nine of diarrhœa. Of these, seven cases of dysentery and one of diarrhœa terminated fatally. In alluding to the cases of fever which occurred on board this vessel, reference has been made to the locality in which she was principally stationed, and to which the surgeon of the ship refers the great sickness which prevailed on board. The duties on which the crew of the vessel were employed, and the temptations to which they were exposed in consequence, had, however, no doubt a very large share in increasing the sick rate. "The crew," the surgeon says, "had occasionally a good deal of hard work and exposure. This commenced with driving the rebels (Taepings) out of Ningpo City, and subsequently out of the various towns held by them in the vicinity, putting defences in order, and doing guard at the different gates till Chinese troops had acquired a proficiency in drill and discipline, which admitted of their being employed on such important duties. And in drilling these Chinese, a large number of the marines were daily for a long time employed. These duties necessarily kept a large proportion of the crew much out of the ship, and afforded opportunities for them to indulge in irregularities to which seamen and marines are ever prone. Even if they did not go into excesses, their mode of life was much less according to rule than when on board ship, and in this way they were rendered more susceptible of disease. . . . . We hoped for an improvement with each coming month, but were disappointed. No change from the unhealthy state in which the crew were, took place till the winter months commenced." Almost all the cases of dysentery, and three-fourths of the cases of diarrhœa, occurred while the vessel was stationed in the Ningpo River.

The Euryalus suffered very severely from dysenteric diarrhœa, fifty-four cases of dysentery having been under treatment, and 288 cases of diarrhœa. Eight of the dysenteric cases terminated fatally. This vessel arrived at Hong Kong from England on the 12th of August, left that island for Japan on the 28th of the same month, and arrived at Yokohama on the 14th of September. "On our arrival at that place" the surgeon says, "the sanitary condition of the ship was highly satisfactory,

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satisfactory, our sick list was reduced to twenty-two, or 4·4 per cent. But this pleasant state of things was of short duration. In a few days our number of sick increased twofold. Diarrhœa broke out among the men to a rather alarming extent. I attributed the cause of the complaint to the water supplied to the ship by the contractor, who supplied it from a reservoir situated in a paddy-field. The field was manured with human ordure, and irrigated by the water which was ultimately supplied to the shipping. The Japanese inhabitants of a neighbouring village were seen to wash their soiled linen in the same reservoir. Independently of decomposing vegetable and animal matters, I detected, by the aid of the microscope, five different species of animalcules in the water; and in one drop I counted about sixty of these little animals. It had an oily, fishy taste, and a disagreeable odour." At this time seventy-eight cases of diarrhœa and two of dysentery, came under treatment. After visiting Yedo and Nagasaki, the Euryalus left Japan for Shanghai, where she arrived on the 21st of October. It was at this place, and in connection with the expedition to Kahding, in which the ship's company were engaged, that so much of the disease and mortality which appear in the returns of this vessel occurred. With reference to this expedition, the surgeon writes: "On our arrival we found that an expedition had been organized against a fortified town called Kahding, situated about forty miles from Shanghai, and in possession of the rebels. The expeditionary force amounted to about 5,000 strong, including 3,000 trained Chinese. There were about 1,500 British troops, and about 500 sailors and marines engaged. The expedition started soon after sunrise on the 22nd; the military marched overland, and on a tolerably good road; the marines and sailors were embarked in flat-bottomed boats or "chops" for the purpose of forming an escort to the military train, commissariat, and medical departments . . . . In consequence of our late arrival in Shanghai harbour, the men, and even the officers, of the Euryalus were embarked in boats which afforded but indifferent shelter from the heat of the sun during the day, and from the heavy dews which fell at night. The majority of our boats, in fact, had no kind of covering whatever. The flotilla proceeded along a shallow, tortuous river, meandering through a flat alluvial plain which, before the approach of the rebels, was richly cultivated and fertile, producing cotton, rice, maize, the sweet potato, and other vegetables; but now a barren waste, presenting everywhere

where ruin and desolation." After the capture of Kahding, the British troops returned immediately to Shanghai; the Chinese force remained to garrison the town; and the force from the Euryalus, after remaining at anchor in the river that night, on the next morning went in pursuit of the rebels, and scoured the country within a circuit of about twenty miles. At this time diseases of the stomach and bowels began to prevail. The surgeon says, "The greater part of these diseases arose from exposure during the Kahding expedition. The strength of the force employed from this ship upon that occasion was 217, or twenty-eight officers and 189 men. I have calculated the number of cases of diarrhœa as 101, or 47·8 per cent. of the force employed. I have only counted the cases of that disease admitted on the sick list between the 25th of October, the date of the first appearance of choleraic diarrhœa and cholera, and the 8th of November, when nearly the whole of the cases that had not been subdued by remedial agents, had become dysenteric. This estimate, however, may fairly be taken as being below the mark, when the fact that there were a number of officers and men suffering from relaxation of the bowels at that time who did not seek medical advice, is taken into account. The number of cases of cholera was thirty-nine or 18·4 per cent. of the whole force, and the number of cases of dysentery amounted to fifty-two, or 24·6 per cent.; the total number of cases of these three diseases among that small force was, therefore, 192, or 90·9 per cent.

"The comparative number of cases of these diseases, as usually happens on those occasions, was greater among the men than among the officers. The former amounted to 98·4 per cent., and the latter to 22·2. The total number of deaths arising from cholera and dysentery contracted at Kahding, was thirty-four, or 16·1 per cent. of the whole force employed from this ship. In making this calculation I have counted an officer who died at Chefoo after leaving the Euryalus; twelve men who died at Hong Kong Hospital; and one who died between Hong Kong and Singapore whilst taking a passage to England as an invalid in the Sanspareil. The per-centage of deaths among the officers, compared with the men, was much greater than the average however; in fact I have never found, during former experience with expeditions in China, so much loss, comparatively speaking, as on this occasion. The per-centage of deaths among the men has been 16·4, and among the officers 13·6." The remarks which are made in the journal of the ship in reference to the cases of dysentery

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dysentery which appeared at this time, are very interesting, and are, therefore, transcribed in full—

"Although cases of this disease appear on the sick list as early as the 26th of October, those cases were originally entered under the head of diarrhœa, which merged into dysentery subsequently. The first case appeared on the 2d of November. The man contracted cholera whilst on detached duty with the expeditionary force. That disease was subdued by means of calomel and opium, chloroform, sinapisms, and friction. On the 1st of November, however, there was a recurrence of a serous discharge from the bowels, which on the 2d became bloody, and accompanied by tormina and tenesmus. The dysenteric symptoms disappeared under the influence of Dover's powder, combined with mercury and chalk; and on the 4th the patient was convalescent. On the 9th fever of a remitting type supervened, which, after having been checked by quinine, was followed again by diarrhœa. Here was a case showing the intimate relationship which existed between the diseases contracted at Kahding. Here was a case of cholera followed by dysentery, ultimately becoming remitting fever, alternating with diarrhœa. There was another case of cholera which terminated in dysentery. Cholera in that case was followed by fever of a remitting type, accompanied by gastritis. Dysentery supervened, attended by low typhoid febrile symptoms, which terminated fatally.

"It was remarkable that dysentery and remittent fever appeared on the same day, viz., the 2d of November. The former disease, however, did not appear in full force until the 7th or 8th of that month. The second case that appeared in fact, although the patient had been under treatment since the 31st of October, did not become manifest before the 7th of November. The disease which was invariably preceded by diarrhœa, either of a serous or bilious character, usually approached in a most insidious manner; blood and mucus would appear in stools, which had hitherto been copious and liquid, without any corresponding constitutional disturbance; the skin would remain cool, the pulse quiet, and the tongue clean. Here was the congestive or inflammatory stage of the disease which, if active remedial measures were not at once resorted to, would pass on to ulcerative and gangrenous inflammation. But such was the rapid progression of inflammatory action in the greater portion of the cases, that remedies were of no avail. Sloughing of the mucous lining of the colon, and suppurative inflammation of the liver had commenced in some cases when they were little suspected. There was only one death from dysentery on board the Euryalus, and in that case it was discovered after death, indeed I may say, during life, what terrible destruction had been going on in the large intestine. The amount of sloughing in that case was so great that the gut gave way, and protruded per anum during life. The morbid appearances in that case differed from those of dysentery, as seen by me at Canton in 1858 and 1859. In all the cases of dysentery examined by me after death during that period, whilst in medical charge

charge of the 1st Brigade, there was invariably to be found a deposit in the tubular glands, and in many of the cases of the solitary glands of the colon. The deposit usually formed a thick fungoid or mammillated layer upon the surface of the mucous coat, which, upon section was found to be organised, more or less. The ulcerative process could be distinctly traced as commencing on the surface of the fungoid masses of dysenteric deposit, and sometimes implicating the mucous membrane beneath, and even the muscular coat, but as a rule the ulcerating mass could be removed with the handle of a scalpel, leaving the mucous membrane beneath injected but otherwise uninjured. In the cases alluded to, accompanying suppuration of the liver was of very rare occurrence; and I may state that when abscesses were discovered in that organ, the ulcerative process going on in the dysenteric deposit of the gut, had penetrated one, at least, of its coats. In this case nothing approaching to dysenteric deposit could be detected on the surface of the mucous membrane. The inflammatory action, which must have rapidly assumed the gangrenous form, had, in my opinion, commenced in this case in the sub-mucous cellular tissue. The surfaces of some of the sloughed portions which had not yet been thrown off by the adhesive inflammatory process, evidently appeared to be a continuation of the mucous membrane itself, and only separated from it by a line of demarcation. When these discoloured patches which had not been yet separated from the adjacent tissues were cut into, a quantity of purulent matter gushed out. In some places these sloughs had been thrown off, leaving large excavated ulcers with red granulating edges. I could compare this morbid process to nothing better than that by which a portion of skin is separated from the surrounding parts after the application of potassa fusa. There was one remarkable appearance in this case which has attracted my attention on former occasions, viz., semi-organized fibrine in the right auricle and ventricle. Similar lesions to those seen in this case, where found in the twelve cases who died at Hong Kong, and in the man who died between Hong Kong and Singapore, viz., sloughing ulcers of the large intestine, and suppurative inflammation of the liver.

"I have already hinted as to the probable origin of this outbreak of dysentery. The appearance of remittent fever and dysentery on the same day, and the periodic character of the febrile symptoms which accompanied the latter complaint, tend to show that there must have been some intimate connection between the causes of the two diseases, if they did not both arise from the same cause. Although I by no means think, with some authorities, that dysentery invariably arises from malaria, for I have suffered myself from a severe attack of the disease at Ascension, where that poison does not exist, nevertheless I am inclined to the opinion that the evidence in this instance is in favour of malaria as being the originator of the disease, whether that poison existed in the river water, for which I believe it to have a great affinity, or in the surrounding atmosphere.

"In regard to the treatment adopted in these cases, I have to observe that I found great benefit derived from the use of ipecacuanha in

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in small and frequentiy repeated doses. I gave two or three grains of the drug combined with one quarter or one-sixth of a grain of opium, with marked beneficial effects, every two or three hours, according to the urgency of the cases. In from thirty-six to forty-eight hours under this treatment the tormina and tenesmus ceased, and the stools became copious and feculent. Whether directly or indirectly, the remedy acts upon the liver, for under its use the stools became copious and bilious. Probably its action upon the skin and mucous lining of the intestines, relieves the conjested portal vessels, which no doubt in these cases obstruct the flow of bile through the hepatic ducts. In the cases which were attended by well marked paroxysms of paludal fever, full doses of quinine at the onset of the cold stage were given with advantage."

Eighty-three cases of dysentery and 145 of diarrhœa appear in the returns from the Impérieuse, which vessel was, during a great part of the year, stationed in the Wongpoo river, off Shanghai. Four of the dysenteric cases terminated fatally. The exposure and harassing nature of the work which devolved upon the ship's company during the combined operations against the Taepings in which they were employed, had occasioned so much sickness that it was considered necessary to remove the vessel for a time from the river, and accordingly in the Michaelmas quarter, she left Woosung for a cruize in the Yantze Kiang. After cruising for a fortnight, the sickness had increased to such a degree that she proceeded to Chefu, in the Gulf of Pecheli, a place noted for its salubrity; there the men improved so much, that when the vessel left Chefu on the 25th of September, for Woosung, the sick list numbered only about one-half what it had done, and the approaching cool weather gave hopes of further improvement. In the Michaelmas quarter the average daily sick list was 60·5; on the 25th of September it was reduced to 37, and on the 20th of October it was as low as 17; ten days afterwards it was as high as 86. This large increase was altogether owing to the operations against Kahding, to which the Impérieuse furnished a force of seventeen officers, 166 seamen, and fifty-six marines. The force went partly by water up the creeks, and partly by land. Fifty-five cases of dysentery, and forty-seven of diarrhœa, closely allied to dysentery, and of a very obstinate nature, were among the results of this expedition; and although no deaths occurred at this time from these diseases, they were of an exceedingly tedious nature, and relapses were constantly occurring amongst those who had been discharged to duty.

Eleven cases of dysentery and 248 of diarrhœa, appear in the returns of the Pearl, and are entirely referrible to service in

in the river at Shanghai, and to the various operations in which the men were engaged against the Taepings. One case of dysentery proved fatal, but this was the only loss to the public service from those diseases in this ship.

There were nineteen cases of dysentery and sixty-seven of diarrhœa in the Ringdove, two of the cases of dysentery terminating fatally. These diseases prevailed chiefly while the vessel was employed in the rivers at Ningpo, and Shanghai, but principally in the latter river. The prevalent affection in September was diarrhœa, occurring at a time when cholera was epidemic in the locality. The medical officer* says: "Infectious diarrhœa ran through the ship. All were cases of serous diarrhœa (incipient or masked cholera); being energetically treated from the commencement, most of them did well, though frequent relapses took place, and in some a chronic state supervened." Again, and also in the river at Shanghai, "in November, which was remarkable for warm days and excessively chilly nights, dysentery prevailed to an unusual extent, and continued to do so till the middle of December, when the thermometer fell to freezing point, and the disease ceased to exist."

Five cases of dysentery, of which two had a fatal termination, and one hundred and sixteen of diarrhœa, appear in the returns from the Sphinx, and are for the most part referrible to service in the river at Shanghai. To service in the same river also, and to exposure in the various operations carried on there, may be referred a large proportion of the cases of dysentery and diarrhœa which occurred in the Vulcan. The number of cases of the more formidable disease was nineteen, and of diarrhœa one hundred and seventy-seven, of which two cases of dysentery and two of diarrhœa terminated fatally.

Almost all the cases of dysenteric diarrhœa, and the mortality arising from them, in the Acorn, Algerine, Coromandel, Hesper, Manilla, and the various gunboats, were also referrible to the operations which were carried on in the Woosung river or its tributaries during this year.

Cholera.—One hundred and forty-one cases of cholera were under treatment in the squadron throughout the year, and of

* Assistant Surgeon J. C. Eastcott.

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of these eighty-nine had a fatal termination. This disease, it would appear, had been prevailing to a large extent for some time amongst the Chinese rebels: it had spread to the various towns they were investing, and from thence in a northerly direction as far as the Peiho. At Ningpo and Shanghai it committed great ravages amongst the native Chinese; and the resident Europeans as well as the crews of the men-of-war and merchant vessels employed in the rivers on which those cities stand, also suffered severely. From the coast of China it seems to have been conveyed to Japan, where, at Hakodadi and Nagasaki, it occasioned great mortality. In no instance did the disease appear in any man-of-war excepting in those localities in which it had been prevailing epidemically. Thus, of the vessels of the squadron in which the disease appeared, the Acorn, the Algerine, the Centaur, the Coromandel, the Euryalus, the Impérieuse, the Insolent, the Manilla, the Pearl, the Renard, the Slaney, the Sphinx, the Urgent, the Vulcan, and several of the gunboats, contracted it at Shanghai; while some of the cases in the Coromandel are referrible to Ningpo, as are all those which occurred in the Encounter, and some that appeared in the gunboats. Some amount of the disease that appeared in the Pearl appears to be due to exposure in Japan, to which source also are to be referred all the cases that occurred in the Ringdove, the disease having appeared in that vessel immediately after her leaving Nagasaki, where it was prevailing epidemically. Two cases, both of which proved fatal, appear in the returns from the Saracen, in which vessel the disease was contracted at Singapore, where it was prevailing as an epidemic on shore. The disease as it appeared in the Odin was evidently of the non-malignant character. There were five cases altogether, and they were attributed by the surgeon of the vessel to the raw, cold, moist state of the weather which prevailed at the time in the River Hooghly, where the vessel then was. In one or two instances the affection is said to have been induced by drinking largely of the river water. A fatal case appears in the returns of the Princess Charlotte, the stationary store-ship at Hong Kong. It occurred in an invalid belonging to that vessel, and was one of several cases which terminated fatally on board a transport taking invalids from China to England, and which on the passage home touched at Port St. Louis, Mauritius, where the disease seems to have been prevailing. Cholera made its appearance amongst the invalids while the vessel was at anchor in that harbour.

The

The ships which suffered most severely from this disease were the Coromandel, the Encounter, the Euryalus, the Impérieuse, the Pearl, the Ringdove, and the Vulcan.

There were six cases of cholera in the Coromandel, of which five terminated fatally. This vessel was employed as a tender to the flagship, and her duties necessitated constant communication with infected localities. The first case occurred at Shanghai on the 20th of July, in the person of a quartermaster, who, in the discharge of his duties, had been much exposed to the sun. Death took place in about twenty hours. The second person attacked was an officer, the second master, who had been much exposed in piloting the vessel from Ningpo to Shanghai. He was taken ill on the forenoon of the 29th of July, and died early on the morning of the 31st, at which time also a quartermaster was taken ill while sleeping on deck, and, never rallying, died in about eight hours. These were the only cases that occurred at this time. Subsequently, in October, two men died of this disease at Shanghai, after their return from the expedition to Kahding.

There were ten cases of cholera in the Encounter, and five deaths from this disease appear in connexion with this ship. One of these deaths, however, occurred in an invalid who was taking a passage to England in the Echunga transport, which, as previously mentioned, was visited by an epidemic of cholera while she lay in the harbour of Port St. Louis, Mauritius; so that there were only four deaths from the cases of cholera contracted in China. Moreover, the first case that occurred on board, and proved fatal within sixteen hours, appears not to have been a case of Asiatic cholera, but of fatal choleraic symptoms induced by eating largely of tainted fish. The attack, which was clearly traceable to this cause, occurred on the 1st of January at Canton, and was the only one that appeared at that time. At Ningpo, however, in the Michaelmas quarter, there were nine cases of this disease, three of which terminated in death. Cholera was epidemic on shore at the time.

In the Euryalus, which suffered very severely from this disease, there were twenty-one deaths in thirty-nine cases. They are all referrible to the exposure to which the men were subjected in the Kahding expedition. It has been already observed with reference to the share taken by this ship's company in that expedition, that after the capture of the city of Kahding the military returned to Shanghai, the Chinese

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troops garrisoned the town, and that portion of the Naval Brigade which was composed of the Euryalus' men having anchored in the river during the night which succeeded the taking of the place, went next day in pursuit of the rebels. During that night, the 25th of October, the first case of cholera occurred. The narrative of the outbreak of this disease appears in the following remarks by the surgeon of the ship. Observing that the men, having scoured the country all day without finding any signs of the enemy, returned to Kahding the same evening, he goes on to say:—

"Hitherto the men had been in the enjoyment of good health and spirits, and, with the exception of the wounded (13 in number) there had been no cases of illness reported on the sick list. On that night, however, cholera of a most malignant type suddenly broke out. It was observable that a considerable change had taken place in the weather that night. Hitherto it had been remarkably fine, except, perhaps, that the heat of the sun was considerable, and the dews at night were heavy; the sky became cloudy and overcast, and there was a considerable fall of temperature, followed by a drizzling rain. I merely allude to the change in the weather without attempting to infer anything in connexion with the appearance of cholera from that circumstance.

"The first case appeared about 10 p.m.: an able seaman was suddenly seized with cramps, vomiting, and purging, rapidly terminating in collapse. Other cases followed in quick succession, until the greater portion of the small force were more or less under the depressing influence of the choleraic poison in some form or another.

"The little force, which consisted entirely of the crew of this ship, arrived on board after a tedious and weary passage down the river on the night of the 27th. The disease did not subside immediately after the return of the crew to the ship.

"On the 28th there were admitted two cases of cholera, one of whom, the captain of marines, died that night, and ten cases of choleraic diarrhœa. On the 29th there was only one case of cholera admitted and nine cases of choleraic diarrhœa. On the 30th there were no less than four cases of cholera (one of whom died on the following morning at 3 a.m.) and eight cases of choleraic diarrhœa. After that date the disease subsided, and there were no more traces of it in the ship.

"Cholera on that occasion was not confined, however, to that portion of the naval force which remained behind with Admiral Hope. Four cases occurred among the men who had been ordered to return to their respective ships; two of the four cases were wounded men: they were seized during the passage down the river about the same time as the men who had been in pursuit of the rebels; they all terminated fatally. Neither was the disease confined to the neighbourhood of Kahding at that time, for several cases occurred among the crew of merchant ships lying at anchor in the harbour

harbour of Shanghai, and there was one case on the 26th, which terminated fatally on board Her Majesty's ship Impérieuse at Woosung.

"It is nevertheless a remarkable fact, that the troops who marched back to Shanghai overland, and consequently were not exposed to miasmatic emanations from the river, were not only comparatively healthy, but were said to have improved materially in health after their trip; but it must be admitted that these men had already undergone the ordeal of exposure to the influence of choleraic poison, viz., soon after their arrival in the Shanghai settlement, when there was great mortally among them. They were at this time, therefore, acclimatized and inured, whereas our men were fresh and susceptible.

"During the last year there has been great mortality from cholera among the Chinese, and indeed among the European inhabitants of the Shanghai settlement. It has been estimated that there has been the enormous influx of about half-a-million of Chinese men into that settlement within a period of eighteen months or two years.

"The mortality among the unfortunate Chinese who had sought refuge in the settlement surpasses belief, which is not to be wondered at where there were so many human beings crowded together in indifferent dwellings. I have been informed upon good authority that they died, at one time, at the rate of 3,000 a day, and as they could only procure burial-ground that could accommodate 1,000 a day, the remaining 2,000 were enclosed in boxes of deal boards loosely put together, or packed up in straw or matting, and left to rot in the sun. During the time this ship was at Shanghai there were thousands of dead bodies, more or less hidden from the sight of the passer-by by some loose covering, that were in a state of decomposition and tainting the surrounding atmosphere with their deadly effluvia.

"The last outbreak of cholera on the Yang-tsi-Kiang appears to have commenced in the rebel camps, and to have accompanied those semi-organized hosts on their march towards the north. It raged with great fury at Tien-Tsin, extended to the Taku Forts, and passed across in a mysterious manner to Japan. In that country it pursued a north-westerly course from Nagasaki to Hakodadi, and proved mercilessly destructive in populated towns, where sanitary precautions, either from ignorance or neglect, were defective.

"There are interesting points in connexion with the cause of the outbreak of this disease among our men at Kahding and its vicinity which require consideration.

"This ship arrived at Shanghai in a very satisfactory sanitary condition. There were nineteen, or 3·8 per cent., on the sick list on the morning of the 22d of October, when the expeditionary forces started for Kahding. There were 211 officers and men told off for that detached duty. They proceeded in flat-bottomed boats along a shallow river, which was muddy and unwholesome. They lived in those boats, which came to an anchor at night, and drank freely of the river water. Not a case of sickness appeared among them until the night of the 25th at 10 P. M., when the first case of cholera

 appeared

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appeared. How did they contract the disease, the incubation of which in any case must have been limited to within four days after leaving the ship, for the first time since we left Plymouth? Was it communicated to them by infection? They had no intercourse with the Chinese; they were not even allowed to enter within the walls of the captured city. The only medium of infection was confined to the 'chops' which carried them, and which were propelled by Chinamen, but their decks had been previously cleared of all articles of clothing belonging to the Chinese crew, among whom there was no trace of the disease at the time. Besides, there were a number of men belonging to the Commissariat, Medical, and Military Train departments of the army, who were equally exposed in the boats to the same influence as our men; but this latter fact would militate equally against any other theory as to the cause of the outbreak, except that of its being propagated through the medium of the river water. These men had taken the precaution of carrying with them a supply of good water from Shanghai, where they returned on the morning of the 26th inst. Was the poison inhaled through the medium of a tainted atmosphere? If so, why did the soldiers come off scathless? Admitting that they were inured to the poison or acclimatized, surely there would have been some traces of the choleraic influence among them. It did not appear that there had been a single case of choleraic diarrhœa even among them.

"Although I am inclined to believe, from former experience during the prevalence of a choleraic epidemic in 1854, in the Black Sea, that the disease is communicable from one individual to another when there are a number of cases crowded together between the decks of a ship, it is my conviction, after mature deliberation, that the disease was not propagated by infection during the Kahding expedition. The evidence (though not conclusive) is more in favour of its having been conveyed to the human system through the medium of the river, than through that of any other, in this instance. The usual sanitary precautions were promptly adopted immediately after the return of the men to the ship. Quinine wine was issued to them daily. Coffee was served out to each man before going on duty in the middle and morning watches. The bedding of those men who died of cholera was all destroyed, so as to diminish the chances of the spreading of the disease in the ship. The men, who were now in a state of great mental depression, had also a double allowance of rum, at my recommendation, for some days.

"In a few days after the return of the men who had been on detached duty to the ship, another formidable disease broke out among them, viz., dysentery, and it was remarkable how the cases of choleraic diarrhœa, and two even of cholera, merged into dysentery. On the 2d of November, one of the cases of cholera passed on to hæmorrhagic dysentery, but it was not until the 8th that the disease became fully developed in the ship. The cases of diarrhœa, which had hitherto been either of a choleraic or bilious nature unaccompanied by pain, became dysenteric. The disease shortly assumed so alarming a character, that I strongly recommended to the Admiral the removal of the ship from the malarious district of Shanghai. The febrile symptoms which presented themselves in many

many of the cases showed unmistakeable traces of the malarious origin of the complaint, in fact many of them had well-marked paroxysms of ague. Fever, both of an intermittent type and a formidable remittent fever, appeared about the same time in the ship as dysentery. The facts that many of the cases of the latter complaint were accompanied by paludal fever, and that the two diseases appeared at the same time among that part of the crew who had been on detached duty, led me to think that the fever and dysentery were produced by the same cause, and must have taken about the same time to become fully developed in the human economy. The troops did not suffer from the latter complaints, although almost equally exposed, if the malarious poison originated from the atmosphere in the neighbourhood of Kahding, but not so if the poison was confined to the air near the surface of the river or the river water. I am inclined to believe that the malarious poison as well as the choleraic poison, was conveyed in this instance through the medium of the river water, which the men freely drank of.

"With the exception of two cases of diarrhœa of a choleraic nature (one of whom had been diligently attending upon a man labouring under cholera who died), none of the men who were not on detached duty suffered from any one of the three diseases which were the result of the Kahding expedition; therefore the causes of these diseases, whether two, or three, or more in number, must have been confined to that locality where the men on detached duty had been engaged; and, probably (from the fact of the soldiers not having been influenced,) were limited to the river itself, or the atmosphere in its immediate vicinity. The facts, although by no means conclusive, are in favour (as I have already stated) of the water medium.

"In regard to the incubation of these diseases, it may be remarked (as before noticed), that cholera appeared within four days from the 22d of October, the day on which the men left the ship; and that dysentery and remittent fever appeared within eleven days after that date, the first cases of dysentery and remittent fever having appeared on the 2d of November."

With reference to the mortality, he says—

"Fifteen cases arrived at Shanghai in the stage of collapse. Ten never rallied, but died from exhaustion. In four cases there was partial reaction, established as far as the pulse and animal heat were concerned; but neither bile nor urine was secreted, and they died in a state of coma. In two of these cases there was symptoms which I had never seen before in this disease, viz., rigid contraction of the sterno-mastoid muscles. In one case reaction was complete, but dysentery supervened and carried off the patient. Three of the cases which terminated fatally, however, came under my notice before they had arrived at the stage of collapse: one was a man who had been shot in action, and appears in the Nosological Table under the head of 'wounds in action;' another was the captain of marines, and the third was a man attacked on the 30th of October. Out of forty cases of cholera, therefore, there were twenty-one deaths and nineteen recoveries. Four of the latter were subsequently invalided

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at Hong Kong, and sent home in the Sanspareil. Dysentery had supervened in two of them, and remittent fever, alternating with diarrhœa, in the other two."

Three hasty post-mortem examinations were made during this epidemic: one was on the body of the wounded man, and the other two on those to which allusion has been made with reference to the rigidity of the sterno-mastoid muscles. The particular appearances observed were, an engorged state of the veins and sinuses of the brain, effusion into the ventricles and subarachnoid spaces, a distended state of the large vessels, and of the right auricle and ventricle, and a collapsed state of the lungs; a congested state of the mucous lining and enlargement of the follicles of the intestinal canal, engorged kidneys, and a contracted and empty bladder.

There were thirty-five cases of cholera in the Impérieuse, fifteen of which terminated fatally. Seventeen of these cases occurred in the Midsummer quarter, three in Michaelmas quarter, and fifteen in Christmas quarter. The mortality was five in Midsummer, three in Michaelmas, and seven in the Christmas quarter. The following remarks are made by the surgeon of the Impérieuse, with reference to the cases that occurred in the Midsummer quarter.

"Of this disease, there were altogether seventeen cases, all of which occurred between the 23d of May and the 4th of June. I may here state the results: five died; three in the first stage, and two of consecutive fever, with suppression of urine and poisoning of the system by urea. Six have been discharged cured, and six still remain on the list. In these last cases, consecutive fever occurred, and left much debility behind it. In the three cases which died in the first stage, death was written in the men's faces from the commencement; no medicine, no stimulant, no amount of external heat or friction, produced the slightest benefit. In the others, which recovered, calomel and opium were freely given, preceded, however, by a stimulating emetic. Stimulants were given as requisite; external heat, friction, sinapisms, &c. In one case, the worst of those that rallied, after a mustard and ammonia emetic, I simply gave ten grains of calomel, and five grains subsequently every hour, until the stools became bilious. Brandy was allowed in small quantities frequently repeated. He was not out of danger for twenty-four hours.

"When cholera occurred, the Impérieuse was lying in the narrow and muddy Wongpoo, a tributary of the Yang-tse-Kiang, close to the settlement of Shanghai, a place which possesses all the elements of epidemic disease in a concentrated form—a narrow river in which putrescent bodies, both of men and animals, were constantly floating about; a crowded anchorage; a densely populated and undrained settlement; an alluvial plain outside, with the usual amount of

of paddy-fields, in addition to a high temperature, might naturally be expected to excite sickness. The men were in constant communication with the shore; some got ill in the field when serving against the Taepings; but the worst cases occurred when leave was given subsequently. The three men who died in the first stage had been on shore together, and had all slept for two nights in the same house, in the native or bamboo town, a most filthy locality. Of two other men who were with them, one got violent spasms of the bowels, and the other had a protracted attack of low fever. Leave was stopped on the 2d, and there were no fresh cases after the 4th."

The three cases that occurred during the Michaelmas quarter were in men who were on detached service in the Coromandel, and all the cases in the Christmas quarter occurred amongst the men of the Impérieuse, who formed part of the expeditionary force against Kahding. The officers employed in the expedition scarcely suffered at all.

There is little or nothing of practical value to be obtained from the records of the other ships of the squadron in which cholera prevailed. As has been previously stated, in every instance in which this disease appeared on board a ship, there had been communication with a locality on shore, in which cholera was prevailing epidemically. The case of the transport vessel Echunga, which was conveying invalids from China to England, is strikingly illustrative of this fact. On the 26th of December 1861, 145 invalids were embarked at Hong Kong for a passage to England; after a tolerably good voyage they anchored in the harbour of Port St. Louis, Mauritius, on the 30th of January 1862. Cholera, it appears, had been prevailing for some time in that locality, having reached to Port St. Louis from Petite Rivière in January. It created great ravages on shore, the mortality among the troops being about two in every five cases. During the passage to the Mauritius the Echunga would appear to have been very healthy, and the majority of the invalids were progressing favourably. Unfortunately the medical returns from this vessel are of the most meagre description, but from them it may be gathered that on the 11th of February, while the vessel was lying in Port St. Louis Harbour, the first case of cholera that proved fatal occurred. The man was an ordinary seaman who had been invalided for syphilis, and who had required no medical treatment from the time he embarked in China, until he was seized with the premonitory diarrhœa of cholera on the above date; he died on the 14th. On the 12th two men invalided for dysentery were seized; one died on the 13th, and one on the 14th. On the latter date (the ship being then at sea) two men were attacked,

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attacked, and both died on the 16th; one had been invalided for dysentery, the other for phthisis. The next case occurred on the 15th in the person of a stoker who had been invalided for climatic cachexia and ulcers; on the following day he died. On the 16th three men were attacked; one was an invalid for epilepsy, one for syphilis, and one for rheumatism; two of these men died on the 17th, and the other on the 18th. On the 17th, a man who had been invalided for fever, was attacked and died on the 18th, on which day also an invalid for rheumatism was seized, and died on the 20th. The last fatal case was placed on the sick list on the 23d, the man who had been invalided for disease of the heart expiring on the following day.

Besides the naval invalids who died of cholera at this time there were several deaths amongst the military invalids, the last occurring on the 25th of February. Whether they were occasioned by cholera or not cannot be ascertained, but from the log of the vessel it appears that on the—

8th	of Feb.	1	Private	of the 99th	Regiment died.
10th	„	1	„	99th	„
12th	„	1	„	99th	„
12th	„	1	„	67th	„
18th	„	1	„	67th	„
20th	„	1	„	99th	„
21st	„	1	„	67th	„
24th	„	1	„	99th	„
25th	„	1	„	Regiment not given.	

If these were cases of cholera, it would thus appear that within a fortnight twenty-one men were cut off by this virulent disease. There was no mortality amongst the crew of the transport, numbering altogether thirty men, but three or four cases of cholera occurred amongst them; the disease indeed seems to have confined itself almost exclusively to those who were debilitated by previous sickness.

Diseases of the Liver, &c.—Although there is a very considerable increase in the ratio of cases under this head, the loss to the service by invaliding and death is less than one-half of what obtained in the preceding year. One death from inflammation of the liver terminating in abscess is recorded. The patient, an officer, who ten years previously had been invalided from India for some inflammatory affection of this organ, was placed on the sick list slightly jaundiced and complaining of pain in the region of the liver. The hepatic dulness extended

extended as high as the fourth rib on the right side, and downwards nearly two inches below the costal cartilages. No treatment seemed to be of any avail in checking the progress of the disease, which went steadily on to a fatal termination. On dissection, the right lung was found pressed up into the upper part of the chest by the ascent of the liver, and not more than one-third of its natural size, healthy in appearance and substance, but adherent in every direction to the parietes by old firm adhesions. The liver was enormously enlarged, nearly twice its natural size. It extended upwards as high as the fourth rib, and downwards more than two inches below the costal cartilages. The left lobe reached across the abdomen to the left side. The whole organ was adherent to the diaphragm, to the abdominal parietes, and to the stomach and intestines. The adhesions, particularly those to the diaphragm, were old and firm, and not easily broken up. An abscess "large enough to hold a twenty-four pound shot," and containing from three to four pints of pus, mingled with broken down hepatic substance, was found in the upper and posterior portion of the right lobe of the liver. The substance of the liver all around the abscess was very friable, and yielded at once to the finger.

Diseases of the Genito-Urinary Organs.—There is a considerable decrease in the ratio of cases of venereal disease as compared with the preceding year. Two hundred and eighty-one cases of syphilis were under treatment, of which fifteen were invalided, and one died. The ratio of invaliding is larger than it was last year, but it was explained in the report for 1861, that the reason there was such a comparatively small ratio of invaliding then, was, that many of the ships were on the point of leaving the station, and consequently took their men with them. In the present year, on the contrary, very few vessels left the station.

Fifteen cases of syphilis, and fourteen of gonorrhœa appear in the returns from the Euryalus. The surgeon states that the majority of the syphilitic cases were contracted at Portsmouth and Plymouth, and that subsequently many of them showed signs of the constitution having been impaired by the disease, and were obliged in consequence to be sent home as invalids.

There were fifty-two cases of syphilis, and nine of gonorrhœa in the Impérieuse. Almost all the primary disease was contracted at Shanghai. Many of the cases were, however, of a secondary nature. The surgeon of the Impérieuse says, that even the primary disease in China, and especially at Shanghai, is

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is very often singularly intractable, and very prone to contaminate the system. In the Odin, which suffered to a considerable extent, venereal disease was contracted in Japan; in the Princess Charlotte, in which there were twenty-one cases of syphilis and fifteen of gonorrhœa, they were the result of infection at Hong Kong, in which island the medical officer says these diseases are of frequent occurrence, notwithstanding that a surveillance is exercised over the prostitutes, and the brothels are inspected once a week. In the Scout the disease was contracted chiefly at Singapore and Penang. The cases of syphilis were, as a rule, very tedious, and most of them accompanied with buboes which were long of healing. One severe case of syphilitic cachexia occurred in this ship, in which necrosis of the sternum took place. In this case the patient, a first class petty officer, had contracted the primary disease about five months previously, and being ashamed to report himself, had gone for assistance to a Chinaman who professed to cure syphilis. He stated that he had not taken mercury, or that at any rate he had not been salivated. The primary sores were large, and healed slowly. His general health did not suffer until about a fortnight before he came on the sick list, when he began to feel generally unwell and to suffer from pains in the joints, especially at night. A swelling soon afterwards formed on the upper part of the sternum of about the size of a pigeon's egg; it was excessively tender on pressure, and he had constant pain shooting towards the right shoulder. The swelling was laid open, and exit given to a quantity of unhealthy pus, and on examination with the probe, the instrument was found to grate upon diseased bone, and apparently to pass completely through it. This case did not improve on board. The man lost flesh, and his general health completely gave way. He was ultimately discharged to the Seaman's Hospital at Singapore.

Rheumatism.—This disease was not so prevalent as during the preceding year, although there is only a fractional difference in the ratio of invaliding occasioned by it. The ratio of cases of rheumatism in 1861 was 106·8 per 1,000, in 1862 it was only 79·5 The average ratio of cases for the six years preceding 1862 is 99·6 per 1,000.

Wounds and Injuries.—Five men were killed in action, one man died from the effects of injuries sustained by falling down a hatchway, an officer was killed by an accidental gunshot wound through the head, a seaman who had been wounded in action,

action, and had amputation performed on him in consequence, died of tetanus, which supervened on the operation; a marine attached to a gunboat died from the effects of a wound of the abdomen received on shore, and a seaman also attached to a gunboat died from the effects of an injury to the head inflicted with a handspike. In these two last cases there is nothing to show under what circumstances the injuries were inflicted. Seventeen men were drowned, nine by falling overboard and three while bathing. One man who was missing was supposed to have been drowned. One man was drowned, suicidally, it is supposed; and three are simply returned as drowned, without any mention being made of the circumstances under which the accident took place.

A man who had gone to his hammock in a state of intoxication was found dead in the morning, it is supposed from the impaction of some vomited matters in the larynx. A seaman and a marine were assassinated by Japanese while they were on duty as guard at the British embassy at Yeddo.

There were 204 deaths from disease, and 33 from wounds and injuries of various kinds, making altogether 237, or in the ratio of 66·3 per 1,000 of mean force, an enormous increase as compared with the preceding year, and almost altogther attributable to disease contracted at Ningpo and Shanghai, in connexion with the operations against the Taepings in the rivers on which those cities stand.

Invalided.—Two men were invalided for the sequelæ of fever; six for diseases of the brain and nervous system; nineteen for diseases of the organs of respiration, fifteen of whom were labouring under phthisis; nine for diseases of the heart and bloodvessels; forty-four for diseases of the alimentary canal, of whom thirty-five were rendered incapable of serving by dysentery, and seven by diarrhœa. Seven men were invalided for inflammatory affections of the liver; twenty for diseases of the genito-urinary organs, fifteen of these being for syphilis; sixteen for rheumatism; four for diseases of the bones and joints; five for affections of the special senses; fourteen for diseases of the skin and cellular tissue; twelve of these being for ulcer; five for dyspepsia; thirteen for wounds and injuries of various kinds; and three for hernia; making a total of 167, or in the ratio of 46·7 per 1,000, which is a considerable decrease as compared with the previous year.

Table, No. 1.

Showing the Number of Cases of all Diseases and Injuries, and the Number Invalided and Dead, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	771	216·7	1	·2	8	2·2
Intermittent Fever	449	125·7	1	·2	—	—
Small-pox	58	16·1	—	—	13	3·6
Disease of the Brain	1	·2	—	—	—	—
Apoplexy	5	1·4	—	—	1	·2
Epilepsy	7	1·9	3	·8	—	—
Paralysis	3	·8	1	·2	—	—
Insanity	1	·2	—	—	—	—
Delirium Tremens	4	1·1	—	—	2	·5
Headache, &c.	60	16·8	2	·5	—	—
Inflammation of the Lungs and Pleura	68	19·	4	1·1	1	·2
Phthisis and Hæmoptysis	16	4·4	15	4·2	9	2·5
Influenza and Catarrh	595	166·6	—	—	—	—
Cynanche	81	22·6	—	—	—	—
Asthma	1	·2	—	—	—	—
Functional and Organic Disease of the Heart	25	7·	7	1·9	2	·5
Hæmorrhoids	23	6·4	—	—	—	—
Varix, &c.	4	1·1	2	·5	—	—
Inflammation of the Stomach and Bowels	10	2·8	2	·5	2	·5
Dysentery	265	74·2	35	9·8	57	15·9
Diarrhœa	1,497	419·3	7	1·9	12	3·3
Cholera	141	39·4	—	—	89	24·9
Constipation and Colic	113	31·5	—	—	—	—
Inflammation of the Liver	38	10·5	7	1·9	1	·2
Jaundice	68	18·9	—	—	—	—
Splenitis	1	·2	—	—	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	2	·5	- -	- -	2	·5
Syphilis	281	78·7	15	4·2	1	·2
Gonorrhœa	132	36·9	—	—	—	—
Orchitis	95	26·6	1	·2	—	—
Stricture	15	4·2	4	1·1	—	—
Incontinence of Urine, &c.	2	·5	—	—	—	—
Rheumatism	284	79·5	16	4·4	—	—
Gout	8	2·2	—	—	—	—
Disease of the Bones and Joints	29	8·1	4	1·1	—	—
Ophthalmia	43	12·	4	1·1	—	—
Amaurosis and Cataract	1	·2	1	·2	—	—
Otitis and Deafness	28	7·8	—	—	—	—
Erysipelas	12	3·3	—	—	—	—
Scrofula	1	·2	2	·5	—	—
Bubo (*Symp.*)	71	19·8	—	—	—	—
Phlegmon and Abscess	926	259·3	—	—	—	—
Ulcer	432	121·	12	3·3	—	—
Psora	32	9·2	—	—	—	—
Eruptions, &c.	83	23·2	—	—	—	—
Dyspepsia and Debility	280	78·3	5	1·4	2	·5
Scurvy	1	·2	—	—	—	—
Dropsy	13	3·6	- -	- -	1	·2
Worms	11	3·1	—	—	—	—
Cancer	1	·2	- -	- -	1	·2
Wounds and Injuries	951	266·5	13	3·6	10	2·8
Burns and Scalds	58	16·2	—	—	—	—
Hernia	9	2·5	3	·8	—	—
Drowned	- -	- -	- -	- -	17	4·7
Assassinated	- -	- -	- -	- -	2	·5
Not stated	- -	- -	- -	- -	3	·8
Asphyxia	- -	- -	- -	- -	1	·2
TOTAL	8,107	2,270·7	167	46·7	237	66·3

TABLE, No. 2.

SHOWING the Number of DAYS' SICKNESS from each DISEASE, and from INJURIES, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	8,644	614	9,258	25·3	7·1
Intermittent Fever	3,214	154	3,368	9·2	2·5
Small-pox	789	490	1,279	3·5	·9
Disease of the Brain	-	135	135	·3	—
Apoplexy	55	-	55	·1	—
Epilepsy	48	223	271	·7	·1
Paralysis	132	105	237	·6	·1
Insanity	3	-	3	—	—
Delirium Tremens	27	9	36	—	—
Headache, &c.	604	113	717	1·9	·5
Inflammation of the Lungs and Pleura	1,079	360	1,439	3·9	1·
Phthisis and Hæmoptysis	476	363	839	2·2	·6
Influenza and Catarrh	4,414	11	4,425	12·1	3·3
Cynanche	773	-	773	2·1	·5
Asthma	7	-	7	—	—
Functional and Organic Disease of the Heart	409	251	660	1·8	·5
Hæmorrhoids	255	-	255	·6	·1
Varix	30	117	147	·3	—
Inflammation of the Stomach and Bowels	138	16	154	·4	—
Dysentery	6,241	3,678	9,919	27·1	7·5
Diarrhœa	12,970	1,032	14,002	38·3	10·7
Cholera	1,515	169	1,684	4·6	1·2
Constipation and Colic	647	17	664	1·8	·5
Inflammation of the Liver	743	516	1,259	3·4	·9
Jaundice	874	5	879	2·3	·6
Splenitis	8	-	8	—	—

TABLE, No. 2.—Showing the Number of Days' Sickness from each Disease, &c.—*cont^d.*

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	61	-	61	—	—
Syphilis	8,906	2,865	11,771	32·2	6·
Gonorrhœa	3,014	62	3,076	8·4	2·3
Orchitis	1,498	123	1,621	4·4	1·2
Stricture	432	418	850	2·3	·6
Incontinence of Urine	14	-	14	—	—
Rheumatism	3,770	1,287	5,057	13·8	3·8
Gout	125	-	125	·3	—
Disease of the Bones and Joints	696	267	963	2·6	·7
Ophthalmia	707	119	826	2·2	·6
Amaurosis and Cataract	-	104	104	·2	—
Otitis and Deafness	309	-	309	·8	—
Erysipelas	236	37	273	·7	—
Scrofula	150	31	181	·4	—
Bubo (*Symp.*)	1,746	167	1,913	5·2	1·4
Phlegmon and Abscess	8,808	280	9,088	24·8	6·9
Ulcer	10,576	1,254	11,830	32·4	9·
Psora	276	-	276	·7	·1
Eruptions, &c.	994	38	1,032	2·8	·7
Dyspepsia and Debility	2,913	948	3,861	10·5	2·9
Scurvy	3	-	3	—	—
Dropsy	208	3	211	·5	·1
Worms	98	38	136	·3	—
Cancer	8	20	28	—	—
Wounds and Injuries	12,577	1,049	13,626	37·3	10·4
Burns and Scalds	783	-	783	2·1	·5
Hernia	175	-	175	·4	—
TOTAL	103,178	17,488	120,666	330·5	92·5

TABLE, No. 3. - - - - - - - -

SHOWING the Number INVALIDED from each Ship - - -

CAUSE OF INVALIDING.	Acorn.	Algerine.	Beagle.	Centaur.	Coquette.	Coromandel.	Encounter.	Euryalus.	Hesper.	Imperieuse.	Insolent.
Fever - - - - -	–	–	–	–	–	–	1	–	–	–	–
Intermittent Fever - -	–	–	–	–	–	–	–	–	–	–	–
Paralysis - - - -	–	–	–	–	–	–	–	–	–	–	1
Epilepsy - - - -	–	–	–	–	–	1	–	–	–	–	–
Neuralgia, &c. - - -	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Lungs and Pleura - - -	–	–	–	–	1	–	–	1	–	–	–
Phthisis - - - -	–	–	–	–	–	–	–	2	1	–	–
Disease of the Heart - -	1	–	1	–	–	–	1	–	–	1	–
Varix - - - - -	–	–	–	–	–	–	–	1	–	–	–
Hæmatemesis - - -	–	–	1	–	–	–	–	–	–	–	–
Dysentery - - - -	–	1	–	3	–	–	–	1	–	–	–
Diarrhœa - - - -	–	–	1	2	–	–	–	–	–	1	–
Disease of the Rectum - -	–	–	–	–	–	–	–	–	–	–	–
Disease of the Liver - -	–	–	–	–	–	–	–	–	1	–	–
Syphilis - - - -	–	2	–	–	–	–	1	2	–	5	–
Stricture - - - -	–	–	–	2	–	–	–	–	1	–	–
Orchitis - - - -	–	–	–	–	–	–	–	–	–	–	–
Rheumatism - - -	–	1	–	2	–	–	1	–	–	1	1
Disease of the Bones and Joints - - - -	–	–	–	–	–	–	–	–	–	–	–
Ophthalmia - - -	–	–	–	–	–	1	–	1	–	–	–
Cataract - - - -	–	–	–	–	–	–	–	–	–	–	–
Scrofula - - - -	–	–	–	–	–	–	–	–	–	–	–
Ulcer - - - - -	–	–	–	–	–	1	–	–	–	–	–
Dyspepsia and Debility -	–	–	–	–	–	–	–	2	1	1	–
Wounds and Injuries - -	1	–	–	–	–	–	1	2	2	5	–
Hernia - - - -	–	–	–	–	1	–	–	–	–	–	–
TOTAL - - -	2	4	3	9	2	3	5	12	6	14	2

- - - - - - - TABLE, No. 3.

- - - employed on the EAST INDIA and CHINA Station.

Odin.	Pearl.	Pioneer.	Princess Charlotte.	Renard.	Rifleman.	Ringdove.	Saracen.	Scout.	Slaney.	Snake.	Sphinx.	Swallow.	Urgent.	Vulcan.	Gunboats.	TOTAL.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	1	–	–	–	–	–	–	–	–	1	–	3
1	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	2
–	–	–	–	–	–	1	–	–	–	1	–	–	–	–	–	4
3	–	–	–	2	–	2	–	–	–	1	1	–	–	–	3	15
1	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	7
–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	4	2	1	3	–	–	–	–	–	2	1	–	–	5	12	35
–	–	–	–	–	–	1	–	–	–	–	1	–	–	–	1	7
–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1
–	2	–	–	1	–	–	1	–	–	1	–	–	–	–	1	7
1	1	–	–	–	–	1	–	1	–	–	–	–	–	–	1	15
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	4
–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1
3	–	–	–	3	–	–	–	–	–	–	–	–	–	1	3	16
–	1	–	–	–	–	1	–	–	1	–	–	–	1	–	–	4
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	4
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
–	–	–	1	–	–	–	–	–	–	–	1	–	–	–	–	2
–	–	–	1	–	–	–	–	5	–	–	–	–	1	–	4	12
–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	5
1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	13
1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	3
11	9	2	3	9	3	6	1	6	1	5	7	1	2	10	29	167

TABLE, No. 4. - - - - - - - -

SHOWING the Number of DEATHS in each Ship - - -

CAUSE OF DEATH.	Acorn.	Acteon.	Algerine.	Beagle.	Centaur.	Coromandel.	Encounter.	Euryalus.	Hesper.	Hornet.	Impericuse.	Insolent.	Leven.
Continued and Remittent Fever - - - -	–	–	–	1	–	–	1	–	–	–	2	–	–
Small-pox - - -	1	–	1	–	3	–	–	–	–	–	1	–	–
Apoplexy - - -	–	–	–	–	–	–	–	–	–	–	–	–	–
Delirium Tremens - -	–	–	–	–	–	–	1	–	–	–	1	–	–
Inflammation of the Lungs	–	–	–	–	–	–	–	–	–	–	1	–	–
Phthisis and Hæmoptysis -	–	3	–	–	–	–	1	1	–	1	1	–	–
Disease of the Heart -	–	–	–	–	–	–	–	–	–	–	1	–	–
Disease of the Bowels -	–	–	–	–	–	–	–	–	–	–	–	–	–
Dysentery - - -	2	2	1	–	7	2	7	8	1	–	4	–	1
Diarrhœa - - -	1	–	–	–	7	–	1	–	–	–	–	–	–
Cholera - - - -	–	–	3	–	2	5	5	21	–	–	15	1	–
Disease of the Liver - -	–	–	–	–	1	–	–	–	–	–	–	–	–
Disease of the Kidneys -	–	–	–	–	–	–	–	–	–	–	–	–	–
Syphilis - - - -	–	–	–	–	–	–	1	–	–	–	–	–	–
Not stated - - -	–	–	–	–	–	–	–	–	–	–	–	–	–
Cancer of Stomach - -	–	–	–	–	–	–	–	–	–	–	–	–	–
Debility - - - -	–	–	–	–	–	–	1	–	–	–	–	–	–
Dropsy - - - -	–	–	–	–	–	–	–	–	–	–	–	–	–
Assassinated - - -	–	–	–	–	–	–	–	–	–	–	–	–	–
Wounds and Injuries -	–	–	–	–	–	–	4	1	–	–	1	–	–
Drowned - - - -	–	–	–	1	–	–	2	2	–	–	–	–	–
Asphyxia - - -	–	–	–	–	1	–	–	–	–	–	–	–	–
TOTAL - - -	4	5	5	2	21	7	24	33	1	1	27	1	1

- - - - - - - - - TABLE, No. 4.

- - - employed on the EAST INDIA and CHINA Station.

Manilla.	Odin.	Pearl.	Pioneer.	Princess Charlotte.	Renard.	Rifleman.	Ringdove.	Saracen.	Scout.	Slaney.	Snake.	Sphinx.	Urgent.	Vulcan.	Gunboats.	TOTAL.
–	–	1	–	–	–	–	–	–	1	1	–	–	–	1	–	8
1	–	1	–	2	–	–	–	–	2	–	1	–	–	–	–	13
–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1	9
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	2
–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
1	–	1	–	1	2	–	2	–	–	1	1	2	–	2	9	57
–	–	1	–	–	–	–	–	–	–	–	–	–	–	2	–	12
–	–	13	–	1	–	–	3	2	–	–	–	4	1	6	7	89
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1	2
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	3
–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1
–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	2
1	–	–	–	–	–	–	–	–	–	–	–	1	–	–	2	10
3	1	–	–	–	1	1	–	–	–	1	–	1	3	–	1	17
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
6	3	18	1	6	5	1	5	2	4	3	2	9	4	11	25	237

Table, No. 5.

Showing the Names of the Ships; the Average Complements and the Mean Force of each Ship; the Total Number of Cases; the Total Number of Days' Sickness on Board; and the Average Number of Men Sick Daily.

C. Commissioned. P. O. Paid off. C. S. Station changed. D. Returns defective.

NAME of SHIP.	Number of Guns, Horse Power, &c.	Period.	Average Complement.	Mean Force of each Ship.	Number of Cases.	Number of Days' Sickness on Board.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force of each Ship.	Number discharged to Hospital.
Acorn - - -	Hospital Ship	year	30	30	23	403	1·1	33·3	1
Actæon - P. O.	26 Surveying Vessel -	6 mo.	145	70	116	1,362	3·7	52·8	5
Algerine - -	3 Sc. 80	year	40	40	112	1,578	4·3	107·5	14
Beagle - - -	4 Sc. 160	year	60	60	126	1,644	4·5	75·	4
Centaur - -	6 P. W. 540	year	145	145	277	4,700	12·8	88·2	6
Coquette - C.	4 Sc. 200	3 mo.	90	20	47	517	1·4	70·	1
Cormorant - C.	4 Sc. 200	3 mo.	90	20	108	853	2·3	115·	–
Coromandel - D.	5 P. W. 150	7 mo.	70	40	96	887	2·4	60·	17
Encounter - -	14 Sc. 360	year	165	165	414	5,419	14·8	89·7	16
Euryalus - C.	35 Sc. 400	6 mo.	520	260	907	8,621	23·6	90·7	63
Hesper - - D.	4 Sc. 150	6 mo.	50	25	61	748	2·	80·	3
Hornet - - -	17 Sc. 100	year	160	160	303	3,770	10·3	64·3	10
Impérieuse - -	39 Sc. 360	year	500	500	1,000	18,528	50·7	101·4	62
Insolent - -	2 Sc. 60	year	40	40	100	978	2·6	65·	2
Leven - - D.	3 Sc. 80	1 mo.	60	5	5	17	—	—	–
Manilla - - C.	Sc. 70	11 mo.	50	45	72	665	1·8	40·	3
Odin - - -	16 P. W. 560	year	300	300	854	9,270	25·3	84·3	1
Pearl - - -	21 Sc. 400	year	250	250	835	10,898	29·8	119·	28
Pioneer - C. S.	6 Sc. 350	3 mo.	100	25	48	662	1·8	72·	–
Princess Charlotte -	12 Receiving Ship -	year	350	350	283	3,879	10·6	30·2	10
Renard - - D.	4 Sc. 200	6 mo.	80	40	107	1,344	3·6	90·	5
Rifleman - C.	5 Sc. 100 Surveying Vessel -	6 mo.	90	45	60	502	1·3	28·8	–
Ringdove - D.	4 Sc. 200	9 mo.	80	60	258	2,703	7·3	121·6	21
Saracen - P. O.	4 Surveying Vessel -	6 mo.	30	15	16	239	·6	40·	–
Scout - - -	21 Sc. 400	year	255	255	291	4,957	13·5	52·9	8
Slaney - - -	3 Sc. 80	year	50	50	173	1,496	4·	80·	6
Snake - - -	4 Sc. 160	year	55	55	198	1,565	4·2	76·3	11
Sphinx - - -	6 P. W. 500	year	140	140	402	5,484	15·	107·1	15
Swallow - - C.	9 Sc. 60	3 mo.	90	60	20	191	·5	8·3	1
Urgent - P. O.	6 Sc. 450	11 mo.	145	135	132	2,779	7·6	52·4	7
Vulcan - -	6 Sc. 350	year	165	165	562	6,687	18·3	110·9	15

Table, No. 6.

Showing the Number of Cases of all Diseases and Injuries in each Ship on the East India and China Station.

DISEASE OR INJURY.	Acorn.	Actæon.	Algerine.	Beagle.	Centaur.	Coquette.	Cormorant.	Coromandel.	Encounter.	Euryalus.	Hesper.	Hornet.	Imperieuse.	Insolent.	Leven.	Manilla.
Continued and Remittent Fever	2	1	1	21	5	7	2	–	65	53	5	21	163	10	1	1
Intermittent Fever	–	–	11	15	38	1	–	13	57	7	16	8	–	6	–	5
Small-pox	1	–	1	1	7	–	–	–	2	–	–	–	3	1	–	1
Inflammation of the Brain	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Apoplexy	–	–	–	–	–	–	–	–	–	a 1	–	–	–	–	–	–
Epilepsy	–	–	1	–	–	–	–	1	–	1	–	–	1	–	–	–
Insanity	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Delirium Tremens	–	–	–	–	–	–	–	–	1	–	–	–	2	1	–	–
Paralysis	–	–	–	–	–	–	–	–	–	1	–	1	1	–	–	–
Headache, &c.	–	3	–	6	–	–	2	3	2	8	–	5	2	2	–	–
Inflammation of the Lungs and Pleura	–	2	–	–	–	2	–	–	8	10	2	–	3	4	–	–
Phthisis and Hæmoptysis	1	–	–	–	–	–	–	–	1	4	–	4	1	1	–	–
Catarrh	3	24	7	16	41	–	14	2	7	54	1	4	135	–	–	2
Cynanche	–	2	4	1	2	1	1	1	3	7	–	9	–	–	–	–
Asthma	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Functional and Organic Disease of the Heart	–	–	–	–	1	1	–	–	1	5	–	1	1	–	–	–
Hæmorrhoids	–	–	1	2	1	–	–	–	–	2	–	–	3	–	–	–
Varix, &c.	–	–	–	–	–	–	–	–	–	3	–	–	–	1	–	–
Inflammation of the Stomach and Bowels	–	–	–	b 2	–	–	–	–	–	c 1	–	b 1	–	2	–	–
Dysentery	2	1	3	–	7	–	–	12	27	54	–	1	83	3	–	1
Diarrhœa	8	38	24	8	59	3	14	39	79	288	3	11	145	11	–	15
Cholera	1	–	2	–	2	–	–	6	10	39	–	–	35	1	–	1
Constipation and Colic	–	3	8	3	–	2	2	2	–	7	4	3	8	–	1	3
Inflammation of the Liver	–	1	2	–	1	1	–	1	4	1	–	2	2	1	–	1
Jaundice	1	–	1	–	2	–	–	–	3	12	–	–	3	1	–	–
Splenitis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Kidneys and Bladder	–	–	–	–	1	–	–	–	–	1	–	–	–	–	–	–
Syphilis	1	4	9	–	7	–	–	4	7	15	7	17	52	13	–	5
Gonorrhœa	–	2	2	1	9	–	–	6	–	14	–	7	9	2	–	–
Orchitis	–	3	3	4	5	–	1	–	4	3	–	6	17	3	–	4
Stricture	–	–	–	–	1	–	–	–	–	–	–	2	–	1	–	–
Incontinence of Urine, &c.	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–
Rheumatism	–	6	2	3	19	2	7	2	9	27	1	12	24	7	–	6
Gout	–	–	3	–	–	–	–	–	–	1	–	–	–	–	–	–
Disease of the Bones and Joints	–	–	1	–	1	1	–	–	4	11	–	–	2	–	–	–
Inflammation of the Eyes	–	–	3	–	5	–	–	1	–	3	–	1	3	–	–	3
Amaurosis and Cataract	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–
Otitis and Deafness	–	2	–	–	1	1	–	–	–	11	–	3	2	–	–	–
Erysipelas	–	–	–	–	–	2	–	–	1	1	–	–	–	–	–	–
Scrofula	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Bubo (*Symp.*)	–	–	–	2	2	1	–	–	7	–	–	1	10	2	–	–
Phlegmon and Abscess	–	4	2	6	22	13	37	1	20	106	7	102	42	6	–	8
Ulcer	–	–	3	9	16	–	–	1	10	20	1	27	33	3	–	5
Psora	–	–	–	–	–	–	–	–	1	31	–	–	–	–	–	–
Eruptions, &c.	–	2	1	13	3	1	3	–	3	4	–	7	7	2	–	–
Dyspepsia and Debility	1	1	9	6	4	2	10	–	1	10	4	16	34	4	–	3
Dropsy	–	1	–	–	–	–	–	–	–	1	–	5	–	1	–	1
Worms	–	1	–	–	–	–	–	–	–	1	–	–	3	–	–	–
Wounds and Injuries	1	15	8	7	15	5	11	–	65	83	10	23	166	9	2	4
Burns and Scalds	1	–	–	–	–	–	4	1	2	4	–	2	5	–	1	3
Hernia	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Cancer	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–
Scurvy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	23	116	112	126	277	47	108	96	414	907	61	303	1,000	100	5	72

continued on p. 248.

a Coup de Soleil. b Hæmatemesis. c Melæna.

TABLE, No. 6—Showing the Number of Cases of all Diseases and Injuries, &c.—*continued.*

DISEASE OR INJURY.	Odin.	Pearl.	Pioneer.	Princess Charlotte.	Renard.	Rifleman.	Ringdove.	Saracen.	Scout.	Slaney.	Snake.	Sphinx.	Swallow.	Urgent.	Vulcan.	TOTAL.
Continued and Remittent Fever	130	58	11	10	5	7	75	–	3	40	28	31	–	2	13	771
Intermittent Fever	2	18	2	16	8	–	10	–	40	49	19	23	–	8	77	449
Small-pox	–	5	–	4	3	–	1	–	16	1	6	–	–	–	6	58
Inflammation of the Brain	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1
Apoplexy	–	–	–	*a* 3	–	–	–	–	*a* 1	–	–	–	–	–	–	5
Epilepsy	1	–	–	–	–	1	–	–	–	–	–	–	–	1	–	7
Insanity	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Delirium Tremens	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4
Paralysis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
Headache, &c.	6	–	–	–	3	9	2	–	1	–	–	3	–	1	2	60
Inflammation of the Lungs and Pleura	8	6	–	10	2	–	–	1	1	3	4	1	–	1	–	68
Phthisis and Hæmoptysis	2	1	–	–	–	–	1	–	–	–	–	–	–	–	–	16
Catarrh	40	45	5	1	4	4	5	–	10	6	17	86	1	23	38	595
Cynanche	16	6	–	–	–	–	1	–	9	5	–	1	1	–	11	81
Asthma	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Functional and Organic Disease of the Heart	1	–	–	1	–	–	–	1	1	–	4	4	–	2	1	25
Hæmorrhoids	2	8	–	–	1	1	–	–	1	–	–	–	–	–	1	23
Varix, &c.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4
Inflammation of the Stomach and Bowels	2	1	–	1	–	–	–	–	–	–	–	–	–	–	–	10
Dysentery	2	11	–	–	6	1	19	2	2	2	2	5	–	–	19	265
Diarrhœa	29	248	2	16	3	7	67	3	13	15	32	116	5	19	177	1,497
Cholera	5	13	–	–	1	–	6	2	–	1	–	5	–	1	10	141
Constipation and Colic	12	5	–	15	6	–	2	–	3	2	1	4	–	–	17	113
Inflammation of the Liver	2	4	1	2	6	–	–	–	–	3	2	–	–	1	–	38
Jaundice	1	20	–	4	1	–	1	–	2	–	3	4	–	–	9	68
Splenitis	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1
Inflammation of the Kidneys and Bladder	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
Syphilis	23	7	4	21	12	5	9	–	27	1	4	10	2	6	9	281
Gonorrhœa	10	25	1	15	5	1	–	1	7	1	3	6	–	2	3	132
Orchitis	5	8	–	11	1	1	2	–	2	1	7	1	–	–	3	95
Stricture	1	7	–	1	–	–	–	–	2	–	–	–	–	–	–	15
Incontinence of Urine, &c.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
Rheumatism	24	15	–	38	4	1	5	–	20	2	4	23	3	3	15	284
Gout	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	8
Disease of the Bones and Joints	3	–	–	1	–	1	–	–	–	2	1	–	–	–	1	29
Inflammation of the Eyes	6	–	–	2	1	1	1	–	2	1	–	2	–	–	8	43
Amaurosis and Cataract	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Otitis and Deafness	–	1	–	–	1	1	–	–	1	–	–	–	–	–	2	28
Erysipelas	–	1	–	–	–	–	–	1	–	3	–	1	–	–	2	12
Scrofula	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Bubo (*Symp.*)	6	6	–	2	–	–	12	–	7	3	1	3	–	–	6	71
Phlegmon and Abscess	197	136	16	47	5	4	9	2	23	8	12	35	4	20	32	926
Ulcer	141	13	–	19	9	1	16	2	42	2	3	28	1	16	11	432
Psora	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	32
Eruptions, &c.	16	–	–	1	–	5	–	–	9	1	–	–	–	2	3	83
Dyspepsia and Debility	18	73	–	4	1	–	7	–	13	2	11	20	–	4	22	280
Dropsy	1	–	–	–	–	–	–	–	–	–	–	1	–	–	2	13
Worms	1	2	–	2	–	–	–	–	–	–	–	1	–	–	–	11
Wounds and Injuries	128	105	6	33	19	8	5	1	31	18	24	80	3	17	49	951
Burns and Scalds	8	6	–	1	–	1	–	–	2	–	–	6	–	3	7	58
Hernia	2	1	–	1	–	–	2	–	–	–	–	1	–	–	1	9
Cancer	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Scurvy	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	1
TOTAL	854	835	48	283	107	60	258	16	291	173	198	402	20	132	562	8,107

continued from p. 247.

a Coup de Soleil.

AUSTRALIAN STATION.

(To face p. 249.)

419, Ordered by the House of Commons to be printed 26 June 1865.

AUSTRALIAN STATION.

Australian Station.

Six vessels were employed on this station during the year 1862, with a mean force, corrected for time, of 945 men, which was exactly the same as in the preceding year, although there was one ship less on the station. There were 1,122 cases of disease and injury under treatment, of which twelve were invalided and nine ended fatally, the former being in the ratio of 12·6 per 1,000, and the latter of 9·5. This is a great decrease as compared with the previous year, when the ratios were respectively 28·4 and 13·7. The loss of service was greatest from catarrh, syphilis, rheumatism, boils, abscesses and ulcers, and from wounds and injuries. The loss of service from syphilis was four times greater than in 1861.

Fevers.—Only five cases of primary fever and two of ague appear in the returns from the squadron. Of the five cases of primary fever, only four have any reference to the Australian station, and two of these were of an ephemeral nature. The other two occurred in the Fawn, and were each, on an average, fourteen days under treatment. They are said to have been simple cases of continued fever, yielding readily to treatment.

The cases of ague occurred in the Pioneer, in old subjects of the disease, which appears to have been contracted in China.

Diseases of the Brain and Nervous System.—There was a case of sunstroke in the Orpheus, when the vessel was lying in Farm Cove, Sydney, in the month of December. It appears to have been of a trifling character, only confining the patient for two days to the sick list.

Diseases of the Organs of Respiration.—Three cases of inflammatory disease of the lungs appear in the returns from the

Australian Station.

the Fawn. They are all entered under the head of bronchitis, and one of them was ultimately invalided as a case of incipient phthisis. They were, as a rule, somewhat slow in their convalescence. Catarrhal affections appear in almost exactly the same number as they did in the previous year. Of four cases of phthisis that were under treatment, three were invalided and one died. In this last case the disease appears to have had its origin in a syphilitic taint. The patient, a marine, had during the previous year suffered from primary syphilis, and subsequently from various secondary syphilitic affections. On the last occasion on which he was placed on the sick list he had cough, hoarseness, and a copious thin expectoration. He did not report himself for these symptoms, however, but for swelling of the left leg from the knee to the ankle, which the surgeon considered was probably owing to obstructed circulation in the limb. This swelling was somewhat reduced by treatment, but ulceration of the foot took place, and the ulcer became indolent. Secondary syphilitic eruption also made its appearance, the cough became more troublesome, and the expectoration purulent. The sore ultimately healed, and his general symptoms so much improved that he was discharged to light duty. Five days afterwards, however, he returned, complaining much of debility, and stating that he now had night sweats. In this state he was sent to the Military Hospital at Sydney, where he died. On post-mortem examination of the body, the right lung was found to be adherent in its whole extent, and converted into a mere sac filled with sanious pus. The left lung was healthy excepting at its upper part, where there was a small abscess about the size of a pigeon's egg. The liver was enlarged, and weighed over four pounds. The lower part of the colon was ulcerated.

Diseases of the Heart and Blood-vessels.—There was no mortality under this head, but one man was invalided for varicose veins of the right leg. He was an ordinary seaman, who ought not to have been admitted into the service. "The veins under the knee, on the posterior part and on the inner side of the leg, were much enlarged and knotted. Along the inner side of the thigh, in the course of the saphena vein, there was a considerable enlargement from distension of the coats of the vessel at this part."

Diseases of the Alimentary Canal.—There is a very considerable decrease in the ratio of cases under this head. There

There was no loss to the service by invaliding in consequence of them, and the mortality was only one-half of what obtained in 1861. One of the fatal cases occurred in the Harrier, the other in the Orpheus. In the former vessel an officer, who was of very intemperate habits, and had long suffered from rheumatic gout, was placed on the sick list labouring under a rather sharp attack of the latter affection. After three days' treatment the pain left him, and the swelling of the joints somewhat subsided; but on the evening of the same day that these favourable symptoms took place, delirium tremens set in. From this affection also he was recovering, and the tremor and delirium had entirely disappeared, when he complained of great distension of the abdomen. The bowels had not been moved for two days, nor had they acted regularly nor satisfactorily since he was confined to bed. The further report of this interesting case is best given in the words of the surgeon* of the ship: "Refuses all nourishment. Tongue furred, moist at edges. Has had two aperient pills. To have a tartrate of soda draught with five grains of carbonate of ammonia. The bowels not acting, he was ordered two more cathartic pills. To continue wine, brandy, beef-tea, &c. May 6th. Was seized last night with a troublesome hacking cough, accompanied by frothy mucuous expectoration. Bowels have not acted. To have another tartrate of soda draught with ammoniæ sesquicarb. In the evening the cough still continued, but the expectoration was now changed in character, and decidedly stercoraceous. Bowels not moved. Vomited on two occasions an enormous quantity of the contents of the intestines mixed with fluid. He now complained of thirst, and took fluids readily. He took negus or wine and-water when thirsty, and a quarter of an ounce of brandy mixed with milk or water, or beaten up with an egg, every hour. He was ordered a turpentine and castor-oil enema, followed by enemata of beef-tea and brandy, which produced two liquid feculent stools, with some temporary relief, but the powers of life had been for some time failing. The extremities became cold, pulse small and weak, surface bathed in cold clammy perspiration, and the slightest exertion produced a state of alarming syncope. The cough became again troublesome, expectoration still stercoraceous. No vomiting since the afternoon, but the stomach

* Surgeon W. G. J. Ayre.

Australian Station.

stomach evidently again filling. To have brandy, wine, &c. every ten minutes. During the night he became restless, excited, and delirious. A morphia draught was given, but the delirium and restlessness increased, the pulse became weaker, the breathing affected, the air-passages choked, and after an effort to turn in bed, he fell back suddenly and expired.

"It is remarkable that such serious symptoms should have arisen so suddenly, and terminated fatally in so short a time. Very little abdominal pain was at any time complained of, the only distress being from the feeling of distension, and there was very little tenderness on pressure, except in the right iliac fossa. The patient had for some years been subject to attacks of rheumatism, which were of an undoubted gouty character, as evinced by the deposit of urate of soda about the knuckles of both hands; and the rheumatism from which he was suffering when admitted on the sick list was also of a decidedly gouty character. It is therefore probable that the latter fatal symptoms were caused by metastasis of the latter disease to the intestines, and that of a spasmodic rather than an inflammatory character. From the naturally rather costive habit of the patient, it is also probable that some impaction of hardened fæces existed in the colon, by which the spasmodic affection of the intestinal canal would be greatly aggravated. The bowels having acted freely at the last, I have no doubt but that the natural action of the intestines would have been restored had not the vital powers been greatly impaired by an irregular life and intemperate habits. No post-mortem examination was made."

The fatal case in the Orpheus was likewise of an interesting nature. The patient, a stoker, complained of pain in the epigastrium, with loss of appetite, nausea, and vomiting. His bowels had been confined for four days, and he complained of colicky pain, which he attributed to his having lately been using white lead in the engine-room, in the execution of his duties. Two days after this he was, to all appearance, much better at the morning visit, although he still complained of gastric pain, aggravated by the presence of food. He was ordered for this, hydrocyanic acid with bicarbonate of soda, and extract of hyoscyamus. In the afternoon of the same day he was suddenly seized with acute pain in the stomach, increased on pressure and motion, great restlessness, urgent vomiting, thirst, and desire for cold drinks.

drinks. The ejected matter consisted of the food which he had taken, coloured with yellowish-green bilious matter. Pulse 90, full and equable, tongue furred, moist, skin cool and moist. Pain was also referred to other parts of the abdomen. The vomiting continued from this time until his death, accompanied with great gastric pain and profuse diarrhœa. On post-mortem examination of the body, the only morbid appearances were found in the abdomen. There were no signs of peritoneal inflammation, but from six to eight ounces of thin serum were found in the abdominal cavity. The liver was healthy, "the stomach contained about two ounces of greenish-coloured matter, and some dark grumous matter; the mucous membrane was highly congested. Towards the cardiac orifice were several ulcerated patches, and near the lesser curvature, about an inch from the cardiac extremity, was a small perforated ulcer about the size of a threepenny piece. The mucous membrane of the intestinal canal in its whole length was also much congested, Peyer's glands being ulcerated towards the ileo-colic valve."

The largest number of cases of diarrhœa occurred in the Harrier during the summer months. They were of a very trifling character.

It does not appear that there were any cases of dysentery in any of the ships of the squadron.

Diseases of the Genito-Urinary Organs.—There is a very large increase in the ratio of venereal diseases, as compared with the preceding year. Thirty-seven cases, altogether, of syphilis were under treatment, of which seventeen were in the Pelorus, and were contracted in Sydney and Melbourne. With reference to these cases, the surgeon* says: "Venereal affections have maintained their evil reputation as the occasion of serious loss of service, in this respect far exceeding any other class of complaints, the average duration of each case being 30·5 days. They, however, were not numerous, which, considering the frequent leave afforded to the ship's company, is fortunate. The sores were mostly of a superficial suppurating character, very generally with a self-inoculating or repeating tendency, one ulcer healing while another made its appearance, in this manner proving protracted and difficult to heal. In three cases they were accompanied

* Dr. Bowden.

Australian Station.

accompanied by suppurating buboes, in which cases no constitutional symptoms were observed to follow subsequently. In two cases severe secondary syphilis made its appearance, in 71 and 76 days respectively, consisting of ulceration of the throat and a scaly and papular copper-coloured eruption. In both these cases the original sores were remarkable for induration, which was not generally observed, and in both, mercurial action was maintained to a somewhat prolonged extent. One of these patients became affected with troublesome condylomata. Gonorrhœal complaints only were found in New Zealand, syphilis being encountered in Australia. Some cases of gonorrhœa in youthful subjects were long in disappearing and harassing in their progress, as is so often observed."

In the Fawn there were eight cases of syphilis and seven of gonorrhœa, the majority of which were contracted at Hobart Town, where, the surgeon* of the vessel says, "judging from the effects on the ship's company, these diseases are more prevalent than in any other part of the Colonies visited by us. The average length of time during which the cases were under treatment was, for syphilis, three weeks, and a fortnight for gonorrhœa."

There were eight cases of syphilis in the Miranda, all of which were contracted either at Melbourne or Sydney. The surgeon gives his testimony to the remarkable freedom from these diseases enjoyed by the various ports on the Australian station.

Rheumatism.—The ratio of cases of this disease is less this year than during any of the six years that precede it. The average of the six preceding years is 99·3 per 1,000, during the present year it is only 64·5. There were only sixty-one cases altogether under treatment, and each case, on an average, was about fifteen days on the sick list. One man only was invalided for this disease.

A case of death from lumbar abscess appears in connexion with the returns from the Harrier. The man, a marine, had been discharged to the Military Hospital at Auckland, in the month of September of the previous year, and died there in February following.

Wounds

* Dr. Fasken.

Wounds and Injuries.—Two officers were killed accidentally; one fell from the bridge of the vessel, in which he was serving, and fractured his skull. In the other case the skull was fractured by riding violently against a tree. Two men were drowned by falling overboard at sea, and a man died in the Military Hospital at Sydney from tetanus supervening on a lacerated wound of the foot. The mortality from wounds and injuries of various kinds, and from drowning, was in the ratio of 5·2 per 1,000, which is exactly the same as in the previous year; but the ratio of mortality from all causes is only 9·5, a considerable decrease as compared with 1861, when it was 13·7.

Invalided.—Three men were invalided for phthisis; one for varicose veins; one for disease of the kidneys; one for rheumatism; three for diseases of the bones and joints; one for cataract; and two for wounds and injuries; making altogether twelve, or in the ratio of 12·6 per 1,000 of mean force, a great decrease as compared with the previous year, when the ratio of invaliding was 28·4 per 1,000.

TABLE, No. 1.

SHOWING the Number of CASES of all DISEASES and INJURIES, and the Number INVALIDED and DEAD, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	5	5·2	—	—	—	—
Intermittent Fever	2	2·1	—	—	—	—
Coup de Soleil	1	1·	—	—	—	—
Headache, &c.	7	7·4	—	—	—	—
Inflammation of the Lungs and Pleura	5	5·2	—	—	—	—
Phthisis and Hæmoptysis	4	4·2	3	3·1	1	1·
Influenza and Catarrh	126	133·3	—	—	—	—
Cynanche	23	24·3	—	—	—	—
Functional and Organic Disease of the Heart	1	1·	—	—	—	—
Hæmorrhoids	3	3·1	—	—	—	—
Varix	2	2·1	1	1·	—	—
Inflammation of the Stomach and Bowels	3	3·1	- -	- -	2	2·1
Diarrhœa	74	78·3	—	—	—	—
Constipation and Colic	8	8·4	—	—	—	—
Inflammation of the Liver	3	3·1	—	—	—	—
Jaundice	3	3·1	—	—	—	—
Inflammation of the Bladder and Kidneys	- -	- -	1	1·	—	—
Syphilis	37	39·1	—	—	—	—
Gonorrhœa	17	17·9	—	—	—	—
Orchitis	10	10·5	—	—	—	—
Stricture	4	4·2	—	—	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Rheumatism	61	64·5	1	1·	—	—
Disease of the Bones and Joints	3	3·1	3	3·1	—	—
Ophthalmia	8	8·4	—	—	—	—
Amaurosis and Cataract	1	1·	1	1·	—	—
Bubo (*Symp.*)	10	10·5	—	—	—	—
Phlegmon and Abscess	373	394·7	-	-	1	1·
Ulcer	51	53·9	—	—	—	—
Psora	7	7·4	—	—	—	—
Eruptions, &c.	23	24·3	—	—	—	—
Dyspepsia and Debility	44	46·5	—	—	—	—
Scurvy	1	1·	—	—	—	—
Purpura	1	1·	—	—	—	—
Wounds and Injuries	187	197·8	2	2·1	2	2·1
Burns and Scalds	9	9·5	—	—	—	—
Hernia	4	4·2	—	—	—	—
Drowned	-	-	-	-	2	2·1
Asphyxia	1	1·	—	—	—	—
Tetanus	-	-	-	-	1	1·
TOTAL	1,122	1187·3	12	12·6	9	9·5

Table, No. 2.

Showing the Number of Days' Sickness from each Disease, and from Injuries, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	44	-	44	·1	·1
Intermittent Fever	61	-	61	·1	·1
Apoplexy	2	-	2	—	—
Headache, &c.	74	-	74	·2	·2
Inflammation of the Lungs and Pleura	108	-	108	·2	·2
Phthisis and Hæmoptysis	144	138	282	·7	·7
Influenza and Catarrh	956	-	956	2·7	2·7
Cynanche	135	-	135	·3	·3
Functional and Organic Disease of the Heart	52	-	52	·1	·1
Hæmorrhoids	16	-	16	—	—
Varix	7	-	7	—	—
Inflammation of the Stomach and Bowels	59	-	59	·1	·1
Diarrhœa	402	-	402	1·1	1·1
Constipation and Colic	25	-	25	—	—
Inflammation of the Liver	107	-	107	·2	·2
Jaundice	43	-	43	·1	·1
Inflammation of the Bladder and Kidneys	-	9	9	—	—
Syphilis	1,280	-	1,280	3·5	3·7
Gonorrhœa	318	-	318	·8	·8
Orchitis	237	-	237	·6	·6
Stricture	71	-	71	·1	·1

TABLE, No. 2.—Showing the Number of Days' Sickness from each Disease, &c.—*cont^d*.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Rheumatism	883	43	926	2·5	2·6
Disease of the Bones and Joints	41	-	41	·1	·1
Ophthalmia	99	-	99	·2	·2
Amaurosis and Cataract	1	-	1	—	—
Bubo (*Symp.*)	333	-	333	·9	·9
Phlegmon and Abscess	4,126	52	4,178	11·4	12·
Ulcer	1,184	10	1,194	3·2	3·3
Psora	80	-	80	·2	·2
Eruptions, &c.	332	-	332	·9	·9
Dyspepsia and Debility	359	-	359	·9	·9
Scurvy	18	-	18	—	—
Purpura	4	-	4	—	—
Wounds and Injuries	2,006	607	2,613	7·1	7·5
Burns and Scalds	153	-	153	·4	·4
Hernia	316	-	316	·8	·8
Asphyxia	1	-	1	—	—
TOTAL	14,077	859	14,936	40·9	43·2

TABLE, No. 3.

SHOWING the Number INVALIDED from each Ship employed on the AUSTRALIAN Station.

CAUSE OF INVALIDING.	Fawn.	Harrier.	Miranda.	Orpheus.	Pelorus.	TOTAL.
Phthisis and Hæmoptysis	2	–	1	–	–	3
Varix	–	–	1	–	–	1
Disease of the Kidneys	1	–	–	–	–	1
Rheumatism	–	1	–	–	–	1
Disease of the Bones and Joints	1	–	–	2	–	3
Cataract	–	1	–	–	–	1
Wounds and Injuries	–	1	–	–	1	2
TOTAL	4	3	2	2	1	12

TABLE, No. 4.

SHOWING the Number of DEATHS in each Ship employed on the AUSTRALIAN Station.

CAUSE OF DEATH.	Harrier.	Miranda.	Orpheus.	Pelorus.	Pioneer.	TOTAL.
Phthisis	–	1	–	–	–	1
Disease of the Bowels	1	–	1	–	–	2
Lumbar Abscess	1	–	–	–	–	1
Drowned	–	–	–	2	–	2
Wounds and Injuries	–	–	1	–	1	2
Tetanus	–	–	–	1	–	1
TOTAL	2	1	2	3	1	9

TABLE, No. 5.

SHOWING the Names of the SHIPS; the Average Complements and the Mean Force; the Total Number of Cases in each Ship; the Total Number of Days' Sickness on Board; and the Average Number of Men Sick Daily.

C. Commissioned. P. O. Paid off. C. S. Station changed.

NAME of SHIP.	Number of Guns, Horse Power, &c.	Period.	Average Complement.	Mean Force of each Ship.	Number of Cases.	Number of Days' Sickness on Board.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force of each Ship.	Number discharged to Hospital.
Fawn	17 Sc. - 100	year	145	145	267	4,363	11·9	82·	6
Harrier	17 Sc. - 100	year	150	150	329	2,213	6·	40·	4
Miranda	15 Sc. - 250	year	185	185	127	1,608	4·4	23·7	2
Orpheus - C.	21 Sc. - 400	6 mo.	255	130	116	1,778	4·8	36·9	4
Pelorus - P. O.	21 Sc. - 400	year	255	255	191	2,964	8·1	31·7	3
Pioneer - C. S.	6 Sc. - 350	9 mo.	110	80	92	1,131	3·	37·5	—

TABLE, No. 6.

SHOWING the Number of CASES of all DISEASES and INJURIES in each Ship employed on the AUSTRALIAN Station.

DISEASE OR INJURY.	Fawn.	Harrier.	Miranda.	Orpheus.	Pelorus.	Pioneer.	TOTAL.
Continued and Remittent Fever	2	–	–	2	1	–	5
Intermittent Fever	–	–	–	–	–	2	2
Coup de Soleil	–	–	–	1	–	–	1
Headache, &c.	1	1	–	2	3	–	7
Inflammation of the Lungs and Pleura	3	1	1	–	–	–	5
Phthisis and Hæmoptysis	–	–	3	1	–	–	4
Catarrh	17	39	27	11	13	19	126
Cynanche	8	10	–	1	3	1	23
Functional and Organic Disease of the Heart	–	1	–	–	–	–	1
Hæmorrhoids	–	1	–	–	1	1	3
Varix	–	–	2	–	–	–	2
Inflammation of the Stomach and Bowels	1	–	–	1	1	–	3
Diarrhœa	17	23	2	2	11	19	74
Constipation and Colic	–	6	–	–	2	–	8
Inflammation of the Liver	–	–	–	–	–	3	3
Jaundice	–	1	–	–	–	2	3
Syphilis	8	2	8	1	17	1	37
Gonorrhœa	7	1	–	2	7	–	17
Orchitis	3	–	2	1	4	–	10
Stricture	1	2	–	–	1	–	4
Rheumatism	12	25	3	11	9	1	61
Diseases of the Bones and Joints	1	–	–	1	1	–	3
Inflammation of the Eyes	1	3	3	–	1	–	8
Amaurosis and Cataract	–	1	–	–	–	–	1
Bubo (*Symp.*)	1	1	–	1	6	1	10
Phlegmon and Abscess	113	114	43	31	51	21	373
Ulcer	12	19	3	3	14	–	51
Psora	1	6	–	–	–	–	7
Eruptions	3	5	5	7	3	–	23
Dyspepsia and Debility	12	13	–	12	3	4	44
Wounds and Injuries	42	50	25	23	31	16	187
Burns and Scalds	1	4	–	–	3	1	9
Hernia	–	–	–	–	4	–	4
Scurvy	–	–	–	1	–	–	1
Purpura	–	–	–	–	1	–	1
Asphyxia	–	–	–	1	–	–	1
TOTAL	267	329	127	116	191	92	1,122

IRREGULAR FORCE.

Irregular Force.

The Irregular Force in 1862 included fifty-nine vessels, the crew of the Conqueror that had been wrecked in the West Indies, and a detachment of marines on passage to Ascension. The mean force, corrected for time, was 5,960: the returns from the different ships are for periods varying from one month to twelve; only six vessels, however, send in returns for twelve months; the total number of cases of all diseases and injuries under treatment was 10,645, being in the ratio of 1,786· per 1,000, and of these 206 were invalided and fifty-seven died, the former being in the ratio of 34·5, and the latter of 9·5 per 1,000 of mean force. The total number of days' sickness, on board ship and in hospital, was 152,604, so that of the whole force about 418 men were daily ineffective, which is in the ratio of 70·1 per 1,000.

About fourteen men were daily under treatment for continued, periodic, and eruptive fevers; six for affections of the brain and nervous system; fifty-two for diseases of the organs of respiration, nearly one-half of whom were labouring under common catarrh or sore throat; about six for affections of the heart and bloodvessels; ten or eleven for diseases of the alimentary canal, diarrhœa constituting one-half of the sickness; one hundred and one for diseases of the genito-urinary organs, almost the whole of whom were labouring under different forms of venereal disease; thirty-one for rheumatism; four for diseases of the bones and joints; six or seven for affections of the special senses; about one hundred and thirteen for diseases of the skin and cellular tissue, forty-four of these being for abscesses or common boils, and forty for ulcers; eight or nine for dyspepsia and debility; and fifty-eight for wounds and injuries of various kinds.

Fevers.—The vessels that suffered most from fever were the Cormorant, the Euryalus, the Pantaloon, and the Race-horse.

Irregular Force.

In the Cormorant, in which there were thirty-eight cases of primary fever of a more or less trifling nature, the affection is attributed by the surgeon of the ship to confinement to a hot and humid atmosphere in some cases, and in others to insolation. All the cases occurred while the ship was on her voyage to the East Indies, and they are thus recorded by the surgeon* of the vessel: "They were chiefly of a mild nature, and perhaps might rather be termed febricula than fever. The disease was characterised by great lassitude and debility, and a feeling of weariness in the lower limbs, especially of the gastrocnemii and hamstring muscles. The first case occurred on the 17th of July, and was rapidly followed by several others. On the 16th of July the wind shifted from the north-east to the south-east, and for the first time since leaving England we had rain; the shower was very heavy, and, commencing in the middle watch, continued to fall until late in the afternoon. During the continuance of the rain, it was necessary to keep the hatchways leading to the lower deck covered in. It so happened that at this period our stock of water was nearly exhausted, and we were employed in condensing. During the process of condensation a large quantity of warm watery vapour escapes from the receiving tank, and pervades the entire lower deck, and this humidity, together with the elevated temperature, will doubtless account for the outbreak of what may be called the epidemic. After leaving Rio de Janeiro a number of cases again appeared, and this time the disease was no doubt in a great degree due to exposure to the rays of a tropical sun, while engaged in refitting ship in Rio harbour. All the cases progressed satisfactorily, and although in some few the debility continued for a month or so, yet as a general rule they were discharged to duty in a week or ten days." Three hundred and fifty-nine days' sickness are referrible to these thirty-eight cases, so that each case was, on an average, about nine and a half days on the sick list.

There were twenty cases of primary fever in the Euryalus, but they were all of a trifling character. Each case was, on an average, from four to six days on the sick list.

In the Pantaloon there were twenty cases of primary fever, of which six were continued, eleven remittent, and three ephemeral. The total days' sickness from all the cases gave an average of eleven days' treatment to each case; the average duration

* Surgeon Richard Eustace.

duration of each case of continued fever on the sick list was ten days, of remittent fever fourteen days, and of ephemeral four days. These cases were for the most part caused by exposure to the sun while trying to get the ship off a coral reef on which she struck at Munhane Point, Pomba Bay, East Coast of Africa, and by the malarial influences which surrounded the men in their encampment on shore at that place. With regard to the cases of continued fever, the surgeon* of the Pantaloon says that they "were caused by fatigue and exposure to the sun. These patients were soon well, under the use of salines, rest, and light diet. They were free from any exacerbations, the 7th day being only remarkable for a sudden feeling of strength, generally succeeding a copious micturition."

Thirty-five cases of primary fever of an ephemeral nature occurred in the Racehorse, on her passage to China. They were doubtless attributable to vicissitudes of climate, and their duration on the sick list rarely exceeded three or four days.

A fatal case of yellow fever occurred in the person of an ordinary seaman of the Edgar. The case is of interest from the fact that the first febrile symptoms began to develope themselves on the fifth day after leaving Havannah, that two days afterwards black vomit made its appearance, when the ship, which was then making for Bermuda, at once bore up for Halifax, and that to this prompt and decisive proceeding is in all probability to be attributed the fortunate circumstance that the fever did not spread in the ship. The surgeon of the Edgar† says, with reference to this case, "the certainty of the disease being in the ship was no sooner established, than on my advice the admiral commanding steamed at once towards Halifax. All the other patients were removed from the sick bay, and no person but the medical officers and attendants had communication with the man up to the time of his death. His clothes and bedding were thrown overboard, the sick bay was well scrubbed and aired, and kept free from sick during the ten days we lay in Halifax harbour." The case was one of great severity, although not so rapidly fatal as in some instances, the man's death not occurring until the sixth day. There was black vomit for three days before death, with oozing of blood from the gums, the tongue, and the mucous surfaces.

Eruptive

* Surgeon H. Harkan. † Surgeon W. H. Sloggett.

Irregular Force.

Eruptive Fevers.—A single case of measles appears in the returns from the Adventure. It occurred at a time when the disease was very prevalent amongst the children of a regiment that was being conveyed by this vessel from Canada to England. In the Euryalus, while fitting out at Portsmouth, scarlatina made its appearance, in the person of a midshipman, and subsequently there were six cases within a short period in the ship. The first case occurred on the 19th of February, and in this instance no direct communication with an infected person appears to have been established; but in the second case, which was placed on the sick list on the 2d of March, the patient, a clerk, had for eight days previous to his joining the Euryalus, which he did on the 20th of February, been residing with his friends in London, where there was a young member of the family convalescing from the disease. There was no mortality from these cases, nor from the single cases that occurred in the Galatea and Meeanee.

Diseases of the Brain and Nervous System.—One hundred and thirty-four cases appear under this head, but more than one-half of these were merely symptomatic of derangement of the organs of digestion. Of the more specific diseases there were two deaths following upon symptoms of a somewhat obscure character. In one the patient, an able seaman, aged 24, was placed on the sick list, complaining of severe pain in the head, and giddiness. Under the treatment to which he was subjected he seemed to be improving, although he still complained of the pain in the head, when one evening, about a month after being placed on the sick list, he made a sudden effort, and rolled out of his hammock: on being lifted from the deck, he was found to be quite insensible, the right pupil was much dilated, and scarcely acted at all under the sudden influence of light: the left was contracted and acting. He groaned much on being first raised from the deck, but afterwards lay quite still, with the pulse 60, and weak, and the respiration diaphragmatic and slow. On the following morning the left pupil became dilated to the size of the right; at noon he was moribund, and in the evening he died. On post-mortem examination of the body the membranes of the brain were found to be closely adherent to each other, so that it was difficult to detach the dura mater. "The veins of the brain were much congested. The substance of the brain itself was natural. On opening the lateral ventricles the left was found to contain about two ounces of greenish pus;

pus: the right was full of greenish serum, evidently of recent formation. There was also a collection of pus in the posterior part of the left hemisphere, communicating with the ventricle of the same side."

The other death occurred in an officer, who first complained of occasional headache with acid eructations, for which he now and then received some medicine. Two days before his death he was seized with violent headache accompanied with vomiting, and these symptoms continued until his death. On post-mortem examination a cyst about the size of a pigeon's egg was found in the right lateral ventricle of the brain. The surrounding brain-substance was normal.

There were four deaths from apoplexy, in only one of which, however, was the fatal event very sudden, and in that instance there was immense extravasation of blood into the ventricles of the brain. A death is recorded from epilepsy. In this case the disease is attributed to an injury sustained some years previously, when the man was wounded in the forehead with a sail needle; the wound healed, but the man was afterwards attacked with epilepsy, and was sent in consequence to the hospital at Bermuda, where, according to his own statement, several pieces of bone came away from the original wound. On examination of the body after death there was apparent softening of the brain in contact with diseased bone in the site of the injury, where also there was some degree of exostosis.

There were three deaths from delirium tremens. Two of these occurred in officers, and the third in the person of a a mess servant.

Diseases of the Respiratory Organs.—The ratios of all diseases under this head were slightly greater than in the previous year. There were two deaths from inflammatory disease of the lungs and seventeen from phthisis. Two men were invalided for asthma, forty-seven for phthisis, and five for the results of inflammatory disease.

Diseases of the Heart and Bloodvessels.—There were fifty-six cases of functional and organic disease of the heart, of which fourteen were invalided, and three died. This is an increase as to ratio over the preceding year. One of the fatal cases was complicated with granular degeneration of the kidneys and a congested state of the lower lobe of the left lung. In this case the left ventricle was much hypertrophied. In another

Irregular Force.

another case death resulted from pericarditis. The substance of the heart itself also was very soft. Two men were invalided for varicose veins.

Diseases of the Alimentary Canal.—A large number of cases of cases of colic occurred amongst the crew of the Conqueror while they were encamped on Rum Cay, after the wreck of that vessel. They appear to have been readily amenable to treatment.

Of ten cases of inflammation of the stomach and bowels, one was invalided and two died. One of the fatal cases is very interesting from the obscure and comparatively trifling character of the symptoms which preceded death. The patient, an able seaman, was placed on the sick list complaining of alternate flushing and shivering, headache, languor, anorexia, thirst, and general indisposition. He had also lumbar and general muscular pains. The heat of skin is said to have been irregularly distributed, the pulse was full, 100, and the tongue coated brown. In this condition he continued for some days, the tongue still retaining its brown appearance, and the only local pain being referred to the head. The abdomen was flaccid, and free from any pain or uneasiness on pressure, and the bowels were regular; slight tremor of the hands, which had been previously perceptible, now became more obvious. The respiration was quiet. Two mornings before his death, which occurred about a fortnight after his being placed upon the sick list, he was found asleep at the morning visit, but shortly afterwards awoke, breakfasted, and presented no unusual symptoms; the pulse continued frequent, full, and soft, and the tongue presented its usual dark coating. In the evening he vomited a lumbricus, which led to his having a terebinthinate draught with castor-oil, followed by a morphine draught after the operation of the purgative. He slept at intervals that night, and complained of a sense of uneasiness about the heart, but otherwise continued much the same. During the day and in the evening he partook freely of food, and in the evening a febrile exacerbation was perceived. On the following morning the surgeon* of the vessel was called at 5 a.m. to see him, when he found him moribund, and at 5·30 a.m. he expired. The following is the report of the autopsy: "Slight adhesions of the pleura to the sternum, of

* Dr. J. Stirling.

of old standing. Lungs and heart healthy, about four ounces of pale serum in the pericardium. On opening the abdomen a vinous smell was immediately perceptible, and fluid was perceived in the cavity of the abdomen, which on being taken up in the hollow of the hand was found to consist of wine-and-water, with translucent undigested masses of sago, probably taken during the night; further examination led to the discovery of extensive softening and ulceration of the cardiac extremity of the stomach, which on its internal surface presented a natural appearance at its pyloric extremity, becoming pinkish red and of a darker hue as the cardiac portion was approached, where the coats had given way, affording an outlet to the ingesta. The lower end of the œsophagus was healthy, as were the jejunum and ileum. There were no traces of peritoneal inflammation observable in the vicinity of the perforation, which in all probability had taken place but a few hours before life became extinct." The case is a very obscure one; the lesions more immediately concerned in the fatal event were probably connected with the heart and the nervous centres. The condition of the stomach appears to have been due to post-mortem changes, softening and giving way of the walls of that viscus being a not unfrequent occurrence after death.

Diseases of the Genito-Urinary Organs.—There were 723 cases of syphilis, and 266 of gonorrhœa under treatment during the year: the former being in the ratio of 121·3, and the latter of 44·6 per 1,000 of mean force. This is a decrease in the ratio of venereal diseases as compared with the preceding year. The vessels that suffered most from these affections were the Edgar, the Euryalus and the St. George.

In the Edgar there were fifty-six cases of syphilis and seven of gonorrhœa. Of the cases of syphilis, probably about one-half were varieties of the secondary forms of the disease: for example, thirty-nine appear in the return for the first quarter of the year, and of these eighteen were in the form of secondary eruptions, "which in some have assumed the different forms of syphilitic roseola, and of pustular and tubercular syphilis. One patient suffered from nodes on the tibia, and loss of hair. One man, whose system seemed more than usually susceptible of the syphilitic poison, became affected with iritis, after successive eruptions; he was sent to Port Royal Hospital for treatment. In some few syphilitic condylomata around the anus, and tubercles of the scrotum, have been the only symptoms of this disease, and some

Irregular Force.

some of the cases of rheumatism have been clearly aggravated by, if not dependent on syphilitic taint." The venereal diseases in the Edgar seem to have been almost altogether contracted at Portsmouth.

There were eighty-one cases of syphilis and forty-one of gonorrhœa in the Euryalus, all which disease was contracted either at Portsmouth or Plymouth, but chiefly at the former port. With reference to the cases that appear in the return for the first quarter of the year, when forty-eight cases of syphilis and thirty-six of gonorrhœa were placed upon the sick list, the surgeon* says: "The majority of the cases of syphilis were, I am sorry to say, of the hard or indurated variety. I have every reason to believe, from the assertions of the patients, that most of them caught the complaint in the same locality, and probably in the same house; therefore it appears to me that the sanitary precautions necessary towards preventing such a common source of immense loss of labour to the service are simple enough. In this return the majority of the cases of syphilis are of the primary kind; in my next I shall have to return many of these cases under treatment for the secondary form of the complaint, and probably sooner or later many of them, in a depressing climate like China, where the blood soon becomes deteriorated by the paludal poison, will again present themselves for treatment, with the tertiary form of the disease. I have now under treatment a man who contracted an indurated chancre at Portsmouth, for the third time. He has had successively the primary, secondary, and tertiary forms of the disease; a strong, hale young man when he joined the ship, he has now become useless to the service. I allude to this case as an example among many others whose services are lost to the Government by this great evil." In referring to the thirty-three cases of syphilis that occurred in the second quarter, he says, "syphilis presented the primary, secondary, and tertiary manifestations."

In the St. George there were seventy-four cases of syphilis and nineteen of gonorrhœa. These affections for the most part were contracted in the home ports.

A death from "morbus Addisonii" occurred in Plymouth Hospital, in a seaman of the Swallow. The symptoms were great languor, giddiness, and slight cough. The skin is stated to have been sub-icteroid in colour, and there were a few

* Surgeon D. L. Morgan.

few darker spots over the trunk. The debility slowly but gradually increased, faintness and vomiting supervened, the mind became confused, and he ultimately sank exhausted.

Wounds and Injuries.—Two men were killed by falling from aloft: in one the skull was fractured, and in the other the femur and the pelvis. A man in falling overboard struck the accommodation-ladder, and sustained a wound over the orbit: he was conveyed to hospital, where ultimately pleuro-pneumonia supervened and proved fatal. An officer was killed by having his skull severely fractured in a brawl on shore, at Marseilles.

Six men were drowned by falling overboard: in one of these cases the man was employed furling the poop awning; and in another, a marine, the man fell overboard from his post where he was sentry. One man was drowned by falling into the water from a plank leading from the ship to the shore; two men were drowned by being swept off the jibboom at sea, and four men were drowned by being capsized in boats.

A man committed suicide by jumping overboard when insane, and an officer committed suicide by swallowing an overdose of morphia. The number of deaths from all diseases was thirty-eight, and from wounds and injuries nineteen; making a total mortality of fifty-seven, or in the ratio of 9·5 per 1,000 of mean force, which is a decrease of nearly 1· per 1,000 as compared with the preceding year.

Invalided.—Twenty men were invalided for diseases of the brain and nervous system, more than one-half of whom were epileptic subjects; fifty-four for diseases of the respiratory organs, of whom forty-seven were consumptive; fourteen for functional and organic disease of the heart; two for varicose veins; two for diseases of the alimentary canal; two for inflammatory affections of the liver; fifteen for diseases of the genito-urinary organs, two-thirds of whom were for syphilis; thirteen for rheumatism; nine for diseases of the bones and joints; thirteen for affections of the special senses; ten for diseases of the skin and cellular tissue; nine for dyspepsia and debility; two for dropsy; one for worms; twenty-four for wounds and injuries of various kinds; and sixteen for hernia; making altogether 206, or in the ratio of 34·5 per 1,000 of mean force, which is an increase of 8· per 1,000 as compared with 1861.

TABLE, No. 1.

SHOWING the Number of CASES of all DISEASES and INJURIES, and the Number INVALIDED and DEAD, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	294	49·3	-	-	1	·1
Yellow Fever	-	-	-	-	1	·1
Intermittent Fever	65	10·9	—	—	—	—
Measles	1	·1	—	—	—	—
Scarlatina	9	1·5	—	—	—	—
Disease of the Brain	1	·1	-	-	2	·3
Apoplexy	6	1·	1	·1	4	·6
Epilepsy	32	5·3	11	1·8	1	·1
Paralysis	4	·6	2	·3	—	—
Insanity	4	·6	3	·5	—	—
Delirium Tremens	19	3·1	-	-	3	·5
Headache, &c.	68	11·4	3	·5	—	—
Inflammation of the Lungs and Pleura	134	22·4	5	·8	2	·3
Phthisis and Hæmoptysis	63	10·5	47	7·8	17	2·8
Influenza and Catarrh	1,148	192·6	—	—	—	—
Cynanche	316	53·	—	—	—	—
Asthma	9	1·5	2	·3	—	—
Functional and Organic Disease of the Heart	56	9·3	14	2·3	3	·5
Hæmorrhoids	23	3·8	—	—	—	—
Varix	16	2·6	2	·3	—	—
Inflammation of the Stomach and Bowels	10	1·6	1	·1	2	·3
Dysentery	16	2·6	-	-	1	·1
Diarrhœa	415	69·6	1	·1	—	—
Cholera	5	·8	—	—	—	—
Constipation and Colic	222	37·2	—	—	—	—
Inflammation of the Liver	13	2·1	2	·3	—	—
Jaundice	6	1·	—	—	—	—
Inflammation of the Bladder and Kidneys	13	2·1	1	·1	1	·1
Syphilis	723	121·3	10	1·6	—	—
Gonorrhœa	266	44·6	—	—	—	—
Orchitis	167	28·	1	·1	—	—
Stricture	35	5·8	3	·5	—	—
Incontinence of Urine, &c.	4	·6	—	—	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Rheumatism	575	96·4	13	2·1	—	—
Gout	14	2·3	—	—	—	—
Disease of the Bones and Joints	39	6·5	9	1·5	—	—
Ophthalmia	87	14·5	3	·5	—	—
Amaurosis and Cataract	11	1·8	3	·5	—	—
Otitis and Deafness	53	8·8	7	1·1	—	—
Erysipelas	31	5·2	1	·1	—	—
Scrofula	10	1·6	2	·3	—	—
Bubo (*Symp.*)	127	21·3	—	—	—	—
Phlegmon and Abscess	1,925	322·9	3	·5	—	—
Ulcer	755	126·6	4	·6	—	—
Psora	339	56·8	—	—	—	—
Eruptions, &c.	227	38·	—	—	—	—
Dyspepsia and Debility	323	54·1	9	1·5	—	—
Scurvy	2	·3	—	—	—	—
Dropsy	12	2·	2	·3	—	—
Worms	4	·6	1	·1	—	—
Purpura	2	·3	—	—	—	—
Wounds and Injuries	1,813	304·1	23	3·8	4	·6
Burns and Scalds	112	18·7	1	·1	—	—
Hernia	20	3·3	16	2·6	—	—
Drowned	-	-	-	-	13	2·1
Suicide	-	-	-	-	2	·3
Poison	1	·1	—	—	—	—
TOTAL	10,645	1786·	206	34·5	57	9·5

TABLE, No. 2.

SHOWING the Number of DAYS' SICKNESS from each DISEASE, and from INJURIES, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	2,281	1,820	4,101	11·2	1·8
Intermittent Fever	416	116	532	1·4	·2
Small-pox	9	26	35	—	—
Measles	11	60	71	·1	—
Scarlatina	58	179	237	·6	·1
Disease of the Brain	-	69	69	·1	—
Apoplexy	84	19	103	·2	—
Epilepsy	260	184	444	1·2	·2
Paralysis	56	337	393	1·	·1
Insanity	24	173	197	·5	—
Delirium Tremens	121	138	259	·7	·1
Headache, &c.	562	270	832	2·2	·3
Inflammation of the Lungs and Pleura	2,173	2,317	4,490	12·3	2·
Phthisis and Hæmoptysis	1,285	2,792	4,077	11·1	1·8
Influenza and Catarrh	7,341	616	7,957	21·8	3·6
Cynanche	2,061	284	2,345	6·4	1·
Asthma	134	37	171	·4	—
Functional and Organic Disease of the Heart	772	1,223	1,995	5·4	·9
Hæmorrhoids	178	72	250	·6	·1
Varix	97	47	144	·3	—
Inflammation of the Stomach and Bowels	168	142	310	·8	·1
Dysentery	121	384	505	1·3	·2
Diarrhœa	2,036	145	2,181	5·9	·9
Cholera	18	6	24	—	—
Constipation and Colic	914	37	951	2·6	·4
Inflammation of the Liver	185	242	427	1·1	·1
Jaundice	109	64	173	·4	—

TABLE, No. 2.—Showing the Number of Days' Sickness from each Disease, &c.—*cont^d.*

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	171	203	374	1·	·1
Syphilis	14,308	13,877	28,185	77·2	12·9
Gonorrhœa	3,828	752	4,580	12·5	2·
Orchitis	2,240	701	2,941	8·	1·3
Stricture	322	527	849	2·3	·3
Incontinence of Urine, &c.	116	56	172	·4	—
Rheumatism	7,159	4,217	11,376	31·1	5·2
Gout	53	5	58	·1	—
Disease of the Bones and Joints	807	694	1,501	4·1	·6
Ophthalmia	1,066	439	1,505	4·1	·6
Amaurosis and Cataract	145	98	243	·6	·1
Otitis and Deafness	671	115	786	2·1	·3
Erysipelas	217	168	385	1·	·1
Scrofula	104	519	623	1·7	·2
Bubo (*Symp.*)	2,272	425	2,697	7·3	1·2
Phlegmon and Abscess	14,325	1,781	16,106	44·1	7·3
Ulcer	11,943	3,005	14,948	40·9	6·8
Psora	2,820	155	2,975	8·1	1·3
Eruptions, &c.	2,526	1,082	3,608	9·8	1·6
Dyspepsia and Debility	2,248	901	3,149	8·6	1·4
Scurvy	63	-	63	·1	—
Dropsy	176	181	357	·9	·1
Worms	102	7	109	·2	—
Purpura	22	-	22	—	—
Cancer	-	7	7	—	—
Wounds and Injuries	17,035	2,917	19,952	54·6	9·1
Burns and Scalds	1,425	64	1,489	4·	·6
Hernia	194	72	266	·7	·1
Poison	-	5	5	—	—
TOTAL	107,832	44,772	152,604	418·	70·1

Table, No. 3.

Showing the Number Invalided

CAUSE of INVALIDING.	Adventure.	Argus.	Barrossa.	Conqueror.	Coquette.	Cordelia.	Cormorant.	Cossack.	Devastation.	Dromedary.	Eclipse.	Edgar.	Euryalus.	Galatea.	Himalaya.	Industry.	Liffey.	Magicienne.	Meeanee.	Megæra.	Mullet.
Apoplexy	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Paralysis	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Epilepsy	1	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	1	-
Insanity	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Neuralgia, &c.	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Inflammation of the Lungs and Pleura	-	-	-	2	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-
Phthisis and Hæmoptysis	-	1	1	-	-	-	-	2	1	-	1	5	8	1	1	-	2	1	-	1	1
Asthma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Functional and Organic Disease of the Heart	-	3	1	-	-	-	-	2	-	-	-	-	-	3	1	-	-	-	-	1	-
Varix	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disease of the Bowels	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Diarrhœa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disease of the Liver	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disease of the Kidneys	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syphilis	1	-	-	1	-	-	-	-	-	-	-	-	1	1	-	-	1	-	-	1	-
Stricture	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-
Orchitis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dropsy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rheumatism	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Disease of the Bones and Joints	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	1	-	-	-	-	-
Amaurosis and Cataract	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Otitis and Deafness	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Inflammation of the Eyes	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Scrofula	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-
Erysipelas	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Ulcer	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dyspepsia and Debility	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	1	-	-	-	-
Phlegmon and Abscess	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Guinea-worm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Burns and Scalds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Wounds and Injuries	-	-	-	1	1	1	-	2	-	-	-	1	-	1	1	-	-	-	-	1	-
Hernia	-	1	-	1	-	1	-	-	-	-	1	-	1	-	1	-	1	-	-	-	-
Total	7	5	2	6	2	2	1	6	2	1	2	13	15	7	4	1	8	2	1	7	1

Table, No. 3.

from each Ship employed on the Irregular Force.

Orpheus.	Osborne.	Pantaloon.	Perseus.	Peterel.	Phœbe.	Psyche.	Racehorse.	Racoon.	Rapid.	Rattler.	Rattlesnake.	Rifleman.	St. George.	Sansparcil.	Scourge.	Severn.	Stromboli.	Supply.	Swallow.	Tribune.	Zebra.	Total.
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
1	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	2
-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	11
-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	3
-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	3
-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	5
1	3	-	-	-	3	-	1	-	-	1	1	-	7	1	-	2	-	-	1	-	-	47
-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	2
-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	14
-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	2
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
-	-	-	1	-	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-	10
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	3
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	2
1	-	-	-	1	-	-	1	-	-	-	-	-	3	-	-	1	1	-	-	1	-	13
1	1	-	-	-	-	-	-	-	-	-	-	-	2	-	-	1	-	-	-	1	-	9
-	-	1	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	3
-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	1	-	-	-	-	7
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	4
-	1	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	-	-	1	-	1	9
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	3
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
-	-	1	-	-	-	-	-	1	-	2	-	-	7	-	-	1	1	-	-	1	-	23
1	1	-	-	-	-	-	-	-	1	1	-	-	4	1	-	-	-	-	-	-	-	16
8	7	2	2	1	3	1	2	1	1	4	3	2	48	3	2	6	3	1	2	8	1	206

TABLE, No. 4. - - - - - -

SHOWING the Number of DEATHS in each - - - -

CAUSE of DEATH.	Adventure.	Cæsar.	Conqueror.	Cossack.	Dromedary.	Edgar.	Euryalus.	Galatea.	Himalaya.	Lapwing.	Magicienne.	Megæra.
Remittent Fever - -	–	–	–	–	–	–	–	–	–	–	–	–
Yellow Fever - - -	–	–	–	–	–	1	–	–	–	–	–	–
Disease of the Brain -	–	–	–	–	–	–	–	1	–	–	–	–
Apoplexy - - - -	–	–	–	–	–	–	–	–	–	–	–	–
Delirium Tremens - -	1	–	–	–	–	–	–	–	1	–	–	–
Epilepsy - - - - -	–	1	–	–	–	–	–	–	–	–	–	–
Inflammation of the Lungs	–	–	–	–	1	–	–	–	–	–	–	–
Phthisis and Hæmoptysis -	–	–	3	–	–	–	1	1	1	–	1	2
Disease of the Heart -	–	–	–	–	–	–	–	–	–	–	–	–
Disease of the Bowels -	–	–	–	–	–	–	–	–	–	–	–	–
Dysentery - - - -	–	–	–	–	1	–	–	–	–	–	–	–
Disease of the Kidneys -	–	–	–	–	–	–	–	–	–	–	–	–
Wounds and Injuries -	–	–	–	–	–	–	–	1	–	1	–	–
Drowned - - - - -	1	–	–	–	–	2	–	–	–	–	–	2
Suicide - - - - -	–	–	1	1	–	–	–	–	–	–	–	–
TOTAL - - -	2	1	4	1	2	3	1	3	2	1	1	4

- - - - - - - TABLE, No. 4.

- - - - Ship employed on the IRREGULAR FORCE.

Orpheus.	Pantaloon.	Psyche.	Rapid.	Rifleman.	St. George.	Sanspareil.	Scourge.	Severn.	Spitfire.	Stromboli.	Supply.	Sutlej.	Swallow.	Terrible.	Tribune.	TOTAL.
–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
–	–		–	1	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	2	–	–	–	1	–	1	–	–	–	–	4
–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	3
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	2
1	–	–	–	–	2	–	1	1	–	–	1	–	1	–	1	17
–	–	–	–	–	1	1	–	–	–	1	–	–	–	–	–	3
–	–	–	–	–	1	–	–	–	–	–	–	1	–	–	–	2
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1
–	–	1	–	–	–	–	–	–	–	–	–	–	–	1	–	4
1	2	–	–	1	1	1	–	–	–	–	1	–	–	–	1	13
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
2	2	1	1	2	8	2	1	1	1	2	3	1	2	1	2	57

Table, No. 5.

Showing the Names of the Ships; the Average Complements and the Mean Force; the Total Number of Cases in each Ship; the Total Number of Days' Sickness on Board, and the Average Number of Men Sick Daily.

C. Commissioned. P. O. Paid off.

NAME OF SHIP.	Number of Guns, Horse Power, &c.	Period.	Average Complement.	Mean Force of each Ship.	Number of Cases.	Number of Days' Sickness on Board.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force of each Ship.	Number Discharged to Hospital.
Adventure - - C.	2 Sc. 400	9 mo.	165	125	276	3,115	8·5	68·	15
Argus - - - C.	6 P. W. 300	5 mo.	180	75	167	1,896	5·1	68·	3
Barrosa - - - C.	21 Sc. 400	2 mo.	275	45	153	1,362	3·7	82·2	6
Buffalo - - - P. O.	2 Sc. 80	1 mo.	40	5	10	23	- -	- -	5
Cæsar - - - P. O.	76 Sc. 400	1 mo.	765	65	71	611	1·6	24·6	-
Conqueror's Crew - P. O.	- - -	3 mo.	855	215	378	2,672	7·3	33·9	27
Coquette - - - C.	4 Sc. 200	6 mo.	100	50	65	650	1·7	34·	5
Cordelia - - - P. O.	11 Sc. 150	3 mo.	110	25	87	601	1·6	64·	3
Cormorant - - - C.	4 Sc. 200	4 mo.	95	30	112	1,026	2·8	93·3	9
Cossack - - - P. O.	20 Sc. 250	8 mo.	265	180	314	2,480	6·7	37·2	13
Devastation - - C.	6 P. W. 400	3 mo.	260	65	104	1,571	4·3	66·1	1
Dromedary - - C.	2 Sc. 100	7 mo.	60	35	41	548	1·5	42·8	3
Eclipse - - - C.	4 Sc. 200	3 mo.	90	20	55	475	1·3	65·	4
Edgar - - - P. O.	71 Sc. 600	6 mo.	880	440	661	5,620	15·3	34·7	104
Euryalus - - - C.	35 Sc. 400	5 mo.	530	220	660	6,503	17·8	80·9	69
Galatea - - - C.	26 Sc. 800	7 mo.	550	320	899	8,821	24·1	75·3	32
Himalaya - - - -	6 Sc. 700	year	205	205	363	3,326	9·1	41·3	42
Industry - - - -	2 Sc. 80	year	60	60	86	739	2·	33·3	4
Lapwing - - - P. O.	4 Sc. 200	1 mo.	90	10	7	62	·1	10·	2
Lee - - - - C.	5 Sc. 80	3 mo.	65	15	49	324	·8	53·3	-
Leopard - - - C.	18 P. W. 560	3 mo.	240	60	90	1,012	2·7	45·	2
Liffey - - - C.	39 Sc. 600	6 mo.	485	240	392	4,060	11·1	46·2	30
Lily - - - - C.	4 Sc. 200	1 mo.	90	10	28	204	·5	50·	11
Magicienne - - C.	16 P. W. 400	3 mo.	250	60	138	1,022	2·8	46·6	10
Meeanee - - - C.	60 Sc. 400	1 mo.	715	60	116	1,023	2·8	46·6	17
Megæra - - - -	6 Sc. 350	year	160	160	203	2,717	7·4	46·2	19
Mullet - - - C.	5 Sc. 80	3 mo.	65	15	40	417	1·1	73·3	1
Orpheus - - - C.	21 Sc. 400	6 mo.	275	135	168	3,304	9·	66·6	3
Osborne - - - -	2 P. W. 430	year	95	95	136	1,011	2·7	28·4	18
Pantaloon - - - P. O.	11 Sc. 150	9 mo.	125	95	217	3,361	9·2	96·8	1
Perseus - - - C.	17 Sc. 200	2 mo.	175	30	91	1,058	2·8	93·3	3
Peterel - - - C.	11 Sc. 150	1 mo.	115	10	18	84	·2	20·	1
Phœbe - - - C.	35 Sc. 500	3 mo.	470	115	211	1,862	5·1	44·3	14
Porcupine - - C. P. O.	3 P. W. 132	3 mo.	50	15	21	157	·4	26·6	2
Psyche - - - C.	2 P. W. 250	2 mo.	65	10	16	164	·4	40·	2
Pylades - - - C.	21 Sc. 350	1 mo.	185	15	10	66	·1	6·6	2
Racehorse - - - C.	4 Sc. 200	7 mo.	95	55	215	1,914	5·2	94·5	10
Racoon - - - P. O.	22 Sc. 400	1 mo.	270	20	17	283	·7	35·	5
Rapid - - - C.	11 Sc. 150	4 mo.	130	45	122	748	2·	44·4	-
Rattler - - - C.	17 Sc. 200	6 mo.	175	85	142	2,745	7·5	88·2	6
Rattlesnake - - C.	21 Sc. 400	4 mo.	285	95	228	1,992	5·4	56·8	11
Rifleman - - - C.	5 Sc. 100	6 mo.	90	45	69	447	1·2	26·6	11
St. George - - - -	72 Sc. 500	year	820	820	1,150	16,232	44·4	54·1	101
Sanspareil - - - C.	70 Sc. 400	7 mo	680	395	470	5,176	14·1	35·6	6
Sapphire - - - C.	- - -	1 mo	15	5	3	23	-	-	-
Scourge - - - P. O.	6 P. W. 420	1 mo.	185	15	30	285	·7	46·6	5
Severn - - - - C.	35 Sc. 500	5 mo.	640	265	303	3,592	9·8	36·9	9
Sidon - - - P. O.	22 P. W. 560	2 mo.	295	50	40	897	2·4	48·	9
Simoom - - - P. O.	4 Sc. 400	2 mo.	190	30	56	718	1·9	63·3	3
Spitfire - - C. P. O.	P. W. 140	2 mo.	60	10	14	118	·3	30·	1
Stromboli - - - C.	6 P. W. 280	3 mo.	250	60	176	1,714	4·6	76·6	6
Styx - - - - C.	6 P. W. 280	4 mo.	190	65	203	1,578	4·3	66·1	16
Supply - - - -	2 Sc. 80	year	55	55	77	569	1·5	27·2	6
Sutlej - - - C.	35 Sc. 500	3 mo.	680	170	242	1,620	4·4	25·8	20
Swallow - - - C.	9 Sc. 60	9 mo.	85	65	158	1,604	4·3	66·1	9
Terrible - - - P. O.	21 P. W. 800	1 mo.	300	25	39	487	1·3	52·	3
Tribune - - - C.	23 Sc. 300	6 mo.	330	165	245	3,024	8·2	496	8
Vesuvius - - - C.	6 P. W. 280	1 mo.	155	15	37	212	·5	33·3	3
Vindictive - - - C.	2 - - -	4 mo.	105	35	52	700	1·9	54·2	2
Marine Detachment on passage to Ascension } C.	- - -	3 mo.	40	10	22	165	·4	40·	-
Zebra - - - - C.	17 Sc. 200	2 mo.	180	30	82	770	2·1	70·	1

Table, No. 6.

Showing the Number of Cases of all Diseases and Injuries in each Ship employed in the Irregular Force.

DISEASE OR INJURY.	Adventure.	Argus.	Barrosa.	Buffalo.	Cæsar.	Conqueror.	Coquette.	Cordelia.	Cormorant.	Cossack.	Devastation.	Dromedary.	Eclipse.	Edgar.	Euryalus.	Galatea.	Himalaya.	Industry.	Lapwing.
Continued and Remittent Fever	3	–	–	–	–	9	3	–	38	14	1	1	–	15	26	9	1	–	–
Intermittent Fever	1	2	–	–	–	1	4	–	–	12	1	–	1	4	–	4	3	–	–
Scarlatina	–	–	–	–	–	–	–	–	–	–	–	–	–	–	7	1	–	–	–
Measles	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Brain	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Apoplexy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	a 1	–	–	–	–
Epilepsy	2	–	–	–	1	–	–	–	–	–	–	–	–	1	1	2	–	–	–
Insanity	1	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Delirium Tremens	2	–	–	1	–	–	–	–	–	–	–	–	–	1	–	2	3	–	1
Paralysis	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1	–	1	–	–
Headache, &c.	3	1	2	–	–	1	2	4	1	5	–	–	–	4	10	11	–	–	–
Inflammation of the Lungs and Pleura	5	2	3	–	–	4	1	–	–	1	3	1	–	13	13	6	4	3	–
Phthisis and Hæmoptysis	–	1	1	–	–	3	–	–	–	1	–	–	–	6	9	5	2	–	–
Catarrh	46	12	6	7	34	66	5	2	10	18	4	–	1	33	60	145	33	12	1
Cynanche	8	5	2	–	–	–	–	–	–	5	–	–	2	40	53	35	26	–	1
Asthma	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
Functional and Organic Disease of the Heart	1	4	1	–	–	–	1	–	1	2	1	–	–	4	2	4	–	–	–
Hæmorrhoids	3	–	–	–	1	–	–	–	–	1	3	–	–	–	1	4	–	–	–
Varix	–	1	–	–	–	–	–	3	2	–	–	–	–	–	–	3	–	–	–
Inflammation of the Stomach and Bowels	2	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–
Dysentery	–	–	–	–	–	2	–	–	–	1	–	1	–	2	–	–	–	–	–
Diarrhœa	29	12	2	–	–	17	–	4	7	11	7	1	1	22	9	15	24	–	–
Cholera	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Constipation and Colic	3	1	5	–	–	80	–	5	1	1	–	2	–	8	7	10	1	–	–
Inflammation of the Liver	2	–	–	–	–	–	–	–	–	–	1	–	–	3	–	–	–	–	–
Jaundice	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Kidneys and Bladder	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–
Syphilis	19	5	13	–	–	15	4	1	3	3	13	3	5	56	81	38	38	2	–
Gonorrhœa	2	5	13	–	1	–	–	1	–	2	1	1	1	7	41	14	9	–	–
Orchitis	–	–	2	–	–	4	1	1	2	4	2	1	–	10	16	15	14	1	–
Stricture	3	–	–	–	–	1	–	2	–	–	–	–	–	5	3	3	–	–	–
Incontinence of Urine, &c.	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1	–	–	–
Rheumatism	34	4	12	–	1	4	5	12	2	21	10	3	2	25	28	33	21	12	1
Gout	–	–	1	–	–	–	–	–	–	2	–	–	–	1	1	–	–	–	–
Disease of the Bones and Joints	1	4	–	–	–	1	–	–	–	2	–	1	–	9	4	2	–	2	–
Inflammation of the Eyes	3	1	–	–	–	8	1	–	–	2	–	1	–	7	2	5	3	–	–
Amaurosis and Cataract	–	–	–	–	–	–	–	1	–	–	–	–	–	–	2	–	–	–	–
Otitis and Deafness	–	–	–	–	–	–	–	–	1	1	–	1	–	1	11	1	3	–	–
Erysipelas	–	–	1	–	–	5	–	–	–	–	–	–	–	8	–	2	–	–	–
Scrofula	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–
Bubo (*Symp.*)	4	4	–	–	–	1	1	2	1	2	–	1	2	9	–	13	5	1	–
Phlegmon and Abscess	28	20	–	–	13	37	22	23	14	62	30	4	24	138	100	139	60	15	1
Ulcer	13	1	7	–	9	44	1	2	8	27	9	4	4	80	36	119	13	9	–
Psora	4	–	4	–	–	4	–	–	1	3	–	1	1	25	53	66	19	–	–
Eruptions, &c.	–	5	42	–	2	11	1	–	2	4	–	2	–	15	11	20	4	1	–
Dyspepsia and Debility	18	18	13	1	1	11	1	7	3	3	–	2	3	30	4	1	12	6	1
Dropsy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–
Worms	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–
Purpura	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–
Scurvy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Wounds and Injuries	28	56	23	1	8	44	10	14	15	97	16	8	6	73	55	160	61	17	2
Burns and Scalds	5	2	–	–	–	3	–	–	–	3	2	1	1	4	8	5	6	4	–
Hernia	–	1	–	–	–	1	1	1	–	–	–	–	1	1	–	–	1	–	–
Poison	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–
Total	276	167	159	10	71	378	65	87	112	314	104	41	55	661	660	899	363	86	7

continued on page 282.

a Coup de Soleil.

TABLE, No. 6.—Showing the Number of Cases of all Diseases and Injuries - - -

DISEASE OR INJURY.	Lee.	Leopard.	Liffey.	Lily.	Magicienne.	Meeanee.	Megera.	Mullet.	Orpheus.	Osborne.	Pantaloon.	Perseus.	Peterel.	Phœbe.	Porcupine.	Psyche.	Pylades.	Racehorse.	Racoon.
Continued and Remittent Fever	2	1	14	–	15	–	–	5	1	21	20	4	1	4	2	–	–	35	–
Intermittent Fever	1	–	4	1	–	–	–	–	–	–	1	3	–	1	–	–	–	–	–
Scarlatina	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Measles	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Brain	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Apoplexy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Epilepsy	–	–	–	–	7	–	1	–	1	1	–	–	–	2	–	–	–	–	–
Insanity	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Delirium Tremens	–	–	1	–	–	1	–	–	–	1	–	1	–	–	–	–	–	–	–
Paralysis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Headache, &c.	–	1	3	–	4	–	1	–	1	1	–	2	–	–	–	–	–	–	–
Inflammation of the Lungs and Pleura	1	2	2	–	3	1	1	1	6	1	3	–	–	1	–	–	–	2	–
Phthisis and Hæmoptysis	–	1	3	–	3	–	3	–	1	5	–	–	–	1	–	–	–	1	–
Catarrh	2	10	23	9	1	25	21	–	16	13	21	–	–	22	1	–	2	6	3
Cynanche	–	5	14	–	4	2	3	–	4	4	–	3	1	14	–	–	–	4	1
Asthma	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Functional and Organic Disease of the Heart	–	1	2	–	–	–	–	–	1	3	1	–	–	3	–	–	–	1	–
Hæmorrhoids	–	–	1	–	–	–	1	–	–	–	–	–	–	–	–	–	1	–	–
Varix	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Stomach and Bowels	1	–	1	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–
Dysentery	–	–	–	–	–	–	–	–	–	3	2	1	–	–	–	–	–	–	–
Diarrhœa	2	3	11	1	17	5	15	1	4	12	9	1	1	6	–	–	–	16	–
Cholera	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Constipation and Colic	2	–	4	–	–	1	2	3	–	2	3	–	–	7	–	–	1	–	–
Inflammation of the Liver	2	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Jaundice	–	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–
Inflammation of the Kidneys and Bladder	6	–	–	–	–	–	–	1	–	–	–	1	–	–	–	–	1	–	–
Syphilis	3	8	41	2	13	14	36	4	3	3	–	11	2	17	1	3	1	12	–
Gonorrhœa	1	14	12	–	5	13	4	–	2	–	–	3	–	14	–	–	–	–	–
Orchitis	2	1	7	1	1	1	3	1	2	2	2	1	–	4	–	2	–	2	–
Stricture	2	–	–	1	–	2	–	–	–	–	–	–	–	–	–	–	–	1	–
Incontinence of Urine, &c.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Rheumatism	3	2	30	3	7	11	11	1	11	12	10	1	2	2	3	3	1	12	3
Gout	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–
Disease of the Bones and Joints	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–
Inflammation of the Eyes	1	1	–	1	1	–	2	2	1	–	–	–	–	–	–	–	–	–	–
Amaurosis and Cataract	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Otitis and Deafness	–	–	3	–	3	–	3	–	1	–	–	1	–	–	–	–	–	–	–
Erysipelas	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Scrofula	–	–	–	–	–	–	–	–	–	1	–	–	–	1	–	–	–	1	–
Bubo (*Symp.*)	–	4	5	1	–	2	3	2	3	2	2	1	–	–	–	–	–	2	–
Phlegmon and Abscess	7	10	58	5	24	6	26	5	46	18	41	20	6	37	8	3	–	53	3
Ulcer	5	3	19	2	5	4	5	2	1	4	45	6	–	16	2	–	2	3	–
Psora	–	1	34	–	–	2	4	–	–	–	–	–	–	17	1	–	–	–	–
Eruptions, &c.	–	–	–	–	1	8	4	–	3	3	3	1	1	4	–	–	–	–	–
Dyspepsia and Debility	2	–	14	–	2	–	6	1	16	1	11	2	1	4	–	1	–	23	–
Dropsy	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Worms	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Purpura	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Scurvy	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Wounds and Injuries	1	21	81	1	19	16	41	10	38	16	42	26	3	31	8	4	1	39	6
Burns and Scalds	–	1	1	–	2	1	5	1	4	1	1	2	–	2	–	–	–	2	1
Hernia	–	–	1	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
Poison	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TOTAL	49	90	392	28	138	116	203	40	168	136	217	91	18	211	21	16	10	215	17

continued from page 281.

- - - - - in each Ship employed in the Irregular Force—*continued.*

Rapid.	Rattler.	Rattlesnake.	Rifleman.	St. George.	Sanspareil.	Sapphire.	Scourge.	Severn.	Sidon.	Simoom.	Spitfire.	Stromboli.	Styx.	Supply.	Sutlej.	Swallow.	Terrible.	Tribune.	Vesuvius.	Vindictive.	Marine Detachment on passage to Ascension.	Zebra.	TOTAL.
12	12	6	3	–	4	–	–	3	–	1	–	–	2	1	–	–	–	–	–	2		3	294
1	1	–	–	–	4	1	–	1	–	–	–	1	4	–	1	5	–	1	–	1		–	65
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	9
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	1
–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	1
–	–	–	1	2	–	–	–	–	–	–	1	–	–	1	–	–	–	–	–	–		–	6
2	–	1	–	5	3	–	–	1	–	–	–	–	–	–	1	–	–	–	–	–		–	32
–	–	–	–	1	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–		–	4
–	1	–	–	1	–	–	1	1	–	–	–	–	–	–	–	–	–	1	–	–		–	19
–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	4
–	1	–	–	3	3	–	–	1	–	–	–	–	2	–	–	1	–	–	–	–		–	68
–	2	2	4	17	6	–	1	1	–	–	–	4	2	4	6	–	–	1	–	1		–	134
–	2	–	–	4	2	–	–	3	–	–	1	–	1	–	2	1	–	–	–	–		1	63
6	8	13	6	246	5	–	8	27	7	7	1	34	7	16	25	7	15	24	5	2	6	3	1,148
2	4	8	1	13	23	–	2	4	1	–	1	1	3	1	5	1	2	6	–	1	–	1	316
–	–	–	–	2	–	–	1	3	–	–	–	–	–	–	–	–	–	–	–	–		–	9
–	–	–	–	12	2	–	1	3	–	–	–	1	–	1	1	–	–	–	1	–	–	1	56
–	1	–	–	1	1	–	–	–	–	–	–	–	2	–	–	1	–	–	–	–	1	–	23
–	–	–	–	2	–	–	–	–	–	–	–	–	1	1	–	2	–	–	–	–	–	–	16
–	–	–	–	1	–	–	–	*a*1	–	–	–	–	–	1	–	–	–	–	–	–	–	–	10
–	–	–	–	–	1	–	–	–	–	1	–	–	–	–	–	1	–	1	–	–	–	–	16
3	12	8	4	18	27	–	–	2	–	6	1	1	17	7	–	16	2	4	–	1	5	16	415
–	–	–	–	–	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	5
16	2	5	–	1	12	–	–	1	–	1	–	3	8	3	11	–	–	5	–	–	2	3	222
–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	1	–	–	–	–	–	–	–	13
–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1	6
–	–	–	–	1	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	13
1	6	11	6	74	42	–	–	16	–	–	–	12	*b*11	3	29	5	–	26	5	2	1	–	723
–	8	6	1	19	22	–	–	19	–	–	–	2	2	–	5	3	–	9	–	3	1	–	266
2	1	3	2	15	9	–	–	10	–	1	1	2	1	1	6	4	2	–	–	–	–	2	167
–	4	1	–	1	–	–	–	1	–	1	–	–	–	–	1	1	–	1	–	1	–	–	35
–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4
8	5	6	1	75	16	1	1	9	2	3	3	11	14	2	7	24	5	9	3	6	–	6	575
–	–	1	–	5	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	14
1	1	–	–	4	1	–	–	1	–	–	–	–	2	–	–	–	–	1	–	–	–	–	39
–	2	–	1	12	12	–	1	1	–	–	1	6	–	1	1	–	–	6	–	1	–	–	87
–	–	–	1	2	3	–	1	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	11
–	1	–	1	14	3	–	–	–	–	–	–	2	–	–	2	–	–	–	–	–	–	–	53
–	–	–	1	–	7	–	–	1	–	–	1	–	1	–	1	–	–	1	–	–	–	–	31
–	–	–	–	2	1	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	10
–	2	–	2	20	4	–	–	10	–	–	–	1	3	1	1	5	–	–	2	–	–	3	127
43	19	60	12	230	118	1	6	63	7	11	1	35	45	5	28	32	7	54	10	15	2	15	1,925
3	12	20	1	74	27	–	1	14	–	4	–	8	4	–	20	9	1	28	6	6	–	7	755
–	2	1	1	3	7	–	–	3	–	–	–	15	18	–	48	1	–	–	–	–	–	–	339
1	1	6	1	31	18	–	–	4	–	–	1	2	–	3	2	2	–	6	–	–	–	1	227
–	6	14	4	12	7	–	–	4	3	2	–	5	11	2	2	12	–	11	1	3	3	2	323
–	–	–	–	1	5	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	12
–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	4
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
19	25	50	12	206	61	–	3	86	18	17	1	29	35	21	33	23	5	47	4	7	1	17	1,813
1	–	5	2	11	6	–	2	6	2	1	–	1	2	–	1	2	–	2	–	–	–	–	112
1	1	–	–	6	1	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	20
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
122	142	228	69	1,150	470	3	30	303	40	56	14	176	203	77	242	158	39	245	37	52	22	82	10,645

a Hæmatemesis. *b* Ozœna.

TOTAL FORCE.

Total Force.

In 1862 the Total Force in the service afloat corrected for time was 58,870; and the total number of cases of disease and injury in the various returns was 88,661, so that as nearly as may be there were three entries on the sick list for every two men of the force. The total number invalided during the year was 1,944, and there were 902 deaths, the ratio of the former being 33·, and of the latter 15·3 per 1,000 of mean force. There is thus a decrease in the ratio of invaliding to the extent of 5·3 per 1,000 as compared with the previous year, but there is a fractional increase in the ratio of mortality.

The number of cases of disease and injury per man was on the Home Station, 1·1; on the Mediterranean Station, 1·5; North America and the West Indies, 1·6; South-east Coast of America, 1·6; Pacific, 1·4; West Coast of Africa, 1·7; Cape of Good Hope, 2·5; East Indies and China, 2·2; Australia, 1·1; and in the Irregular Force, 1·7; making altogether an average of 1·5 for the whole force, which is almost precisely the same as obtained in the two preceding years.

The number daily sick on board ship and in hospital was least, as in 1861, on the Australian Station, but the Cape Station, in the present year, shows the greatest sick rate. This is attributable to the peculiar nature of the duties in which some of the vessels of the squadron were engaged in the Mozambique Channel, and especially to the exposure of the men employed in the Zambesi River. On the Australian Station the ratio per 1,000 of men sick daily was 43·2, while on the Cape Station it was 97·3. On the Home Station the ratio is 48·2 which is almost precisely the same as in the preceding year. In the Mediterranean it was 55·6, which

which is a decrease as compared with the previous year of 6·2 per 1,000, and attributable altogether to the improvement in the condition of the squadron in respect to diseases of the organs of respiration. There is a decrease in the daily ratio of sickness in the North American and West Indian Station to the extent of 4·3 per 1,000; but there is a very large increase on the South-east Coast of America. In the Pacific the ratio of sickness daily was 49·6 per 1,000, which is considerably below what obtained in the previous year. On the West Coast of Africa there is a decrease of nearly 8· per 1,000, which is to be attributed to the comparative immunity the squadron enjoyed from river service; while on the Cape Station and in the East Indies and China command the employment of the squadron in river service during this year increased the sick rate to a considerable extent on both stations, the increase on the Cape Station being as much as 21· per 1,000, while in China it was 6· There is a slight increase in the ratio of sickness in the Australian Station, but there is a decrease in the Irregular Force. The mean ratio per 1,000 of men sick daily in the whole force was 57. In the previous year it was 59. Total Force.

The loss by invaliding on the Home Station was slightly less than in the previous year, but on the Mediterranean Station the reduction as compared with 1861 was as much as 10·3 per 1,000. The total loss by invaliding on the North American and West Indian Station was 32·3 per 1,000; on the South-east Coast of America, 40·8; on the Pacific Station, 34·; on the West Coast of Africa, 23·2; on the Cape Station, 32·2; on the East Indies and China Station, 46·7; on the Australian Station, 12·6; and in the Irregular Force, 34·5. The total number invalided for diseases of all kinds was 1,700, or in the ratio of 28·8 per 1,000, and for wounds and injuries 244, or 4·1 per 1,000 of mean force, which gives a total of 1,944 invalided, or in the ratio of 33· per 1,000, which is a reduction compared with the preceding year of 5·2 per 1,000.

There is again a fractional increase in the rate of mortality over the preceding year. This is, however, entirely referrible to what may be termed preventible diseases and accidents. The operations against the Taepings in China occasioned a great loss of life by cholera, and the massacre of two boats' crews raised the ratio of mortality on the Cape Station from 11· per 1,000, which it would otherwise have been, to 23·7.

On

Total Force.

On the Home Station the decrease in the death-rate as compared with 1861 is 1·4 per 1,000; on the Mediterranean ·7. On the North American and West Indian Station the decrease is as much as 19·9 per 1,000, and is attributable to the yellow fever being less prevalent than during the preceding year. On the West Coast of Africa avoidance of river service effected a reduction in the death-rate to the extent of 13·8 per 1,000. On the Australian Station the decrease was 4·2; and in the Irregular Force it was ·9. The ratio of mortality was increased on the other hand to a fractional degree only on the Brazilian and Pacific Stations; but on the Cape of Good Hope Station, as noticed above, the massacre of two boats' crews caused an increase in the death-rate as compared with the preceding year of 5·6 per 1,000; and in China the various operations in the rivers of that station and the necessary introduction of large bodies of men to localities in which cholera was prevailing epidemically, caused an increase in the ratio of mortality to the extent of 40·5 per 1,000.

The ratio per 1,000 of mean force of attacks and deaths from the various classes of disease on the different stations is shown in the following table:

CLASS OF DISEASE.	Home.		Mediterranean.		North America and West Indies.		Brazils.		Pacific.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Continued and Remittent Fevers	14·2	·4	74·1	2·	121·9	4·8	83·	1·4	86·5	·6
Yellow Fever	–	–	–	–	14·8	4·8	–	–	–	–
Intermittent Fever	5·8	–	22·8	–	21·9	–	20·4	–	12·6	–
Eruptive Fevers	2·5	–	3·6	–	·5	–	·7	–	·7	–
Disease of Brain, Nerves, &c.	9·	·4	7·9	·4	11·6	·3	10·5	·7	12·8	–
Disease of Respiratory Organs	195·4	2·8	219·9	2·1	239·5	2·4	218·1	2·1	202·7	3·1
Disease of Heart and Blood Vessels	13·6	·6	12·6	·3	10·5	·9	18·9	2·1	19·9	·3
Disease of Stomach and Bowels	39·	·4	105·4	·6	199·3	1·5	170·2	1·4	136·3	·3
Disease of Liver, Spleen, &c.	4·	·1	8·	·2	4·3	·1	5·6	–	11·9	·3
Disease of Kidneys, Bladder, and Genital Organs	169·4	·3	99·7	–	62·6	·1	76·6	–	74·1	–
Disease of Joints, Muscles, Bones, &c.	70·7	–	109·6	·1	82·6	–	94·3	–	105·6	–
Disease of Senses, Eyes, Ears, &c.	15·8	–	16·8	–	17·7	–	15·4	–	19·4	–
Disease of Skin, Glandular System, and Cellular Tissue	356·1	·2	505·7	·2	451·6	·5	504·7	–	429·	·6
Diseases not specified	49·2	·2	62·1	·5	71·3	·1	87·2	1·4	62·8	–
Wounds, Accidents, &c.	193·6	·2	300·6	2·7	315·3	3·	322·4	7·7	320·3	2·8

(*continued*)

CLASS OF DISEASE.	West Coast of Africa.		Cape of Good Hope.		East Indies and China.		Australia.		Irregular Force.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Continued and Remittent Fevers -	308·2	5·	210·1	–	216·7	2·2	5·2	–	49·3	·1
Yellow Fever - - - -	5·	3·1	–	–	–	–	–	–	–	·1
Intermittent Fever - - -	63·9	–	154·2	–	125·7	–	2·1	–	10·9	–
Eruptive Fevers - - -	–	–	–	–	16·1	3·6	–	–	1·6	–
Disease of Brain, Nerves, &c. -	13·5	2·2	9·7	·8	5·6	·7	1·	–	10·9	1·5
Disease of Respiratory Organs -	121·7	1·3	280·3	·8	212·8	2·7	167·	1·	280·	3·1
Disease of Heart and Blood Vessels	13·1	·4	10·8	1·6	14·5	·5	6·2	–	15·7	·5
Disease of Stomach and Bowels -	155·	3·1	357·3	·8	567·2	44·9	89·8	2·1	111·8	·4
Disease of Liver, Spleen, &c. -	4·	·4	4·9	–	29·6	·2	6·2	–	3·1	–
Disease of Kidneys, Bladder, and Genital Organs - - -	56·8	–	97·1	–	147·4	·7	71·7	–	202·4	·1
Disease of Joints, Muscles, Bones, &c. - - - - -	93·6	–	127·8	–	89·8	–	67·6	–	105·2	–
Disease of Senses, Eyes, Ears, &c.	16·7	–	29·5	–	20·	–	9·4	–	25·1	–
Disease of Skin, Glandular System, and Cellular Tissue - -	447·6	–	678·3	–	436·	–	490·8	1·	572·4	–
Diseases not specified - -	84·3	·4	85·4	–	102·2	4·9	56·1	–	68·8	–
Wounds, Accidents, &c. - -	297·5	5·4	482·	19·4	285·2	9·	212·5	5·2	326·1	3·

Fevers.—The total number of cases of fevers of a continued or remittent type under treatment throughout the year was 4,618, which is in the ratio of 78·4 per 1,000 of mean force. Of these thirty-nine were invalided, in consequence of their sequelæ, and 102 had a fatal termination. The ratio of mortality is 1·6 per 1,000, which is almost precisely the same as obtained in the previous year. It would appear from the foregoing Table that these fevers, as heretofore, were more prevalent, and that the ratio of mortality from them was greater on the West Coast of Africa than on any other station. On the North American and West Indian Station, however, the mortality came very near to that on the Coast of Africa. Although there was a great increase in the ratio of cases of continued and remittent fevers on the Cape of Good Hope Station, consequent chiefly upon the exposure of a number of men to the malarious influences of the Zambesi River, no mortality, fortunately, resulted from them; and on the East Indian and China Station also, although river service brought with it a very large increase in the ratio of cases as compared with the preceding year, the death-rate was very much less in proportion than in 1861. On the Pacific Station there is a slight decrease in the ratio of cases; but the ratio of mortality is very much smaller than in the previous year. In 1861, however, the death-rate from these fevers on that station was almost altogether attributable to the occurrence

Total Force.

occurrence of a number of cases of enteric fever in two vessels. On the Brazil Station the ratio of cases was 83· per 1,000 of mean force, and the death-rate 1·4, which is only one-half of the mortality that obtained in 1861, although the ratio of cases is considerably higher. As stated in the report for that year, however, a low death-rate in connection with these fevers may only indicate that the more severe forms of them were not met with. On the Home Station the ratio of cases is precisely the same as in the previous year; but there is an increase both on the Mediterranean Station and in the Irregular Force. On the Australian Station the ratio of cases was only 5·2 per 1,000, and no mortality resulted from them. In 1861 the ratio of cases on that station was 20·1.

Yellow fever was, fortunately, not so prevalent as in 1861. Of 151 cases that occurred on the North American and West Indian Station and eleven on the West Coast of Africa, fifty-seven terminated fatally. That there was not a greater prevalence of the disease in the vessels in which it appeared on the North American and West Indian Station is, doubtless, attributable to the sound discretion displayed by the commanding officers in at once proceeding to a colder latitude on the cases becoming suspicious.

The expeditions up the Zambesi River, and the operations in the Woosung and Wongpoo Rivers at Shanghai, and the Ptsikei River at Ningpo, caused an enormous increase in the ratio of intermittent fevers on the Cape of Good Hope, and East Indies and China Stations, as compared with the previous year, while on the West Coast of Africa the comparatively small extent to which river operations were conducted reduced the ratio of these fevers by nearly one-third. As compared with 1861, there is an increase in the ratio of these fevers on the Home, Mediterranean, North American and West Indian, Brazils, Cape of Good Hope, and East India and China Stations, and a decrease in the Pacific Station, the West Coast of Africa, the Cape of Good Hope Station, and in the Irregular Force.

Eruptive Fevers.—Although there was a great reduction in the ratio of cases of small-pox, the ratio of mortality was precisely the same as obtained in the preceding year, viz., ·3 per 1,000 of mean force. Upwards of one-half of all the cases of this disease, and fourteen of the eighteen cases which terminated fatally, occurred in China, where small-pox would appear to prevail epidemically in the first quarter of the year, and to be occasioned by the natives being in the habit of inoculating

lating their children at that time. There seems to be some reason to hope that in those localities where Europeans have introduced the practice, vaccination is beginning to be appreciated by the more enlightened Chinese, and that in time it will supplant the pernicious system of inoculation. Total Force.

The ratio of cases of measles was precisely the same as in the preceding year; but there was a considerable reduction in the ratio of cases of scarlatina. As in 1861, however, one death resulted from that formidable disease.

Diseases of the Brain and Nervous System.—There were nine deaths from disease of the brain, fourteen from apoplexy, two from epilepsy, six from paralysis, and ten from delirium tremens. The ratio of cases of these diseases and the death-rate were higher on the West Coast of Africa than on any other station. Insolation and intemperance were their most common exciting causes.

Diseases of the Organs of Respiration.—There is a reduction in the ratio of cases of invaliding and of deaths from diseases coming under this head. The reduction in the death-rate is chiefly under the head of inflammatory diseases of the lungs, the ratio of mortality from phthisis being almost exactly the same as in the preceding year. The largest death-rate was on the Pacific Station, where the mortality was almost altogether attributable to phthisis. As compared with the preceding year there is an increase in the ratio of cases of these diseases on the North American and West Indian, the Brazils, Cape of Good Hope Stations, and the Irregular Force; and a decrease on the Home, Mediterranean, Pacific, West Coast of Africa, East Indies and China, and Australian Stations. The difference in the total ratio of cases in the two years is as 214·8 to 220·5; the difference in the rate of invaliding, as 6·5 to 8·4; and the difference in the death-rate, as 2·5 to 3·.

Diseases of the Heart and Bloodvessels.—Under this head 797 cases were returned throughout the year, of which 212 were invalided, and 41 had a fatal termination. There is only a fractional difference in the ratios of cases, and invaliding, as compared with 1861, and the death rate is precisely the same as in that year.

Diseases of the Stomach and Bowels.—The ratio of deaths from all diseases coming under this head is nearly three times

Total Force.

as large as it was in the preceding year; this arises entirely from the great increase in the mortality from dysentery and diarrhœa when compared with 1861, and the introduction of cholera into the squadron serving in China, from which disease alone nearly one-half of the death-rate is derived. The ratio of cases of these diseases on that station in 1861, was 324·4 per 1,000, and of deaths 8·3; in the present year the ratio of cases is 567·2, and of mortality 44·9. The stations on which there is an increase in the ratio of mortality as compared with the preceding year, are North America and the West Indies, attributable chiefly to the operations in Mexico, the Brazils, West Coast of Africa, and the East Indies and China, while there is a fractional decrease on the Home, Mediterranean and Pacific Stations, and in the Irregular Force, and a very considerable decrease on the Cape of Good Hope, and the Australian Stations. On the Cape Station it may be remembered dysentery was epidemic in one or two vessels in 1861.

Diseases of the Liver and Spleen.—Eleven deaths occurred from inflammation of the liver or its consequences. Four of these occurred on the Home Station, two in the Mediterranean, two on the North American and West Indian Station, one in the Pacific, one on the West Coast of Africa, and one in China.

Diseases of the Genito-Urinary Organs.—The following table of comparison shows the ratio of cases of syphilis and gonorrhœa on the respective stations during the years 1861 and 1862.

	Syphilis.		Gonorrhœa.	
	1861.	1862.	1861.	1862.
Home	100·4	108·6	29·6	34·8
Mediterranean	64·5	60·5	14·5	17·8
North American and West India	35·8	39·1	12·2	17·9
Brazils	29·5	42·2	6·1	13·3
Pacific	45·7	32·6	20·4	10·8
West Coast of Africa	17·1	19·1	8·3	9·1
Cape of Good Hope	47·3	52·5	12·8	17·7
East Indies and China	101·2	78·7	44·5	36·9
Australia	12·7	39·1	8·4	17·9
Irregular Force	155·2	121·3	53·6	44·6

It

Total Force.

It thus appears that there was an increase in the ratio of syphilis on the Home Station, the North American and West Indies, the Brazils, the West Coast of Africa, the Cape of Good Hope, and the Australian Stations, while there was a decrease in the Mediterranean, Pacific and East Indian commands, and in the Irregular Force. In estimating the comparative prevalence of venereal diseases on the different stations, however, it is to be remembered that many cases appearing in the returns from vessels on foreign stations owe their origin to infection at the Home ports. The ratio of these diseases in the Mediterranean will fluctuate according as the vessels of the squadron spend more or less time in localities where surveillance of prostitution is properly conducted. At Malta, for example, and Corfu, as it was in this year, but little risk was to be apprehended in allowing the ship's companies free communication with the shore, while at Naples, on the other hand, even a very short stay was almost certain to be followed by an increase to the sick list of cases of venereal disease. The great decrease in the ratio of syphilitic disease on the East Indian and China Station as compared with the preceding year, is attributable to the smaller amount of communication that was had with Hong Kong and Japan. The squadron was principally engaged in localities where little or no leave could be given.

Rheumatism.—It will be seen by the following table that there is a very considerable difference in the ratios of this affection on the different stations as compared with the preceding year; considering, however, how various are the conditions of the system which may induce the train of symptoms to which the term rheumatism may be applied, any variety in the ratios in different years need not be a matter of much surprise.

Station.	Rheumatism.	
	1861.	1862.
Home	58·1	65·7
Mediterranean	112·8	104·8
North American and West India	88·2	74·9
Brazils	69·6	88·
Pacific	122·6	101·
West Coast of Africa	83·9	86·3
Cape of Good Hope	115·4	121·1
East Indies and China	106·8	79·5
Australia	86·8	64·5
Irregular	99·2	96·4

Total Force.

It will be observed that the Cape of Good Hope Station shows by much the highest ratio of rheumatic disease, and that the Pacific and West Coast of Africa, which have long been pre-eminent for this complaint, take a much lower position on the scale. Much of the rheumatism, however, that appeared in the returns from the Cape Station may be considered to be due to the exceptional nature of the duties on which some of the vessels were employed in the Mozambique Channel, and particularly in the Zambesi River. It occurred either as a sequela of remittent fever, or as a consequence of exposure to malarial influences, and was probably of precisely the same character as is so commonly met with in the Mediterranean. That this is quite an abnormal ratio for the Cape Station, will be observed by the following Table, which gives the mean ratio of rheumatism on the different stations for the six years preceding 1862:—

Home	64·7	Per 1,000 of mean force.
Mediterranean	79·2	
North America and West Indies	67·7	
Brazils	80·6	
Pacific	109·1	
West Coast of Africa	109·2	
Cape of Good Hope	74·8	
East Indies and China	99·6	
Australia	99·3	
Irregular Force	90·3	

It is thus seen that next to the Home and North American and West Indian Stations, the smallest ratio of cases of rheumatism during a period of six years is on the Cape of Good Hope command. The services of the squadron on that station, however, both in 1861 and 1862, were of such a nature as to assimilate it closely to the West Coast of Africa. The constant blockade maintained in the Mozambique Channel for the purpose of checking the slave trade which was being carried on amongst the Arabs, and the exposure to which the men were consequently subjected, no doubt induced a condition of the system similar to that which is found to obtain amongst the crews of the squadron on the West Coast; and it is a significant fact that during these two years the ratio of rheumatic disease should have risen from 60· and 70· per 1,000, between which it had ranged during the five previous years, to 115·4 in 1861, and 121·1 in 1862. It is further to be remarked, as bearing upon the probable connection between the increase of rheumatism in these two years,

years, and the exposure of the men to malarial influences, that while during the five years preceding 1861 the ratio of cases of ague on the Cape Station ranged from 9· to 17·2 per 1,000, it was as much as 37·8 per 1,000 in 1861, and 154·2 per 1,000 in 1862; the ratio of continued and remittent fever during the same years being respectively 122·3 and 210·1, while during the five preceding years the range was from 15·7 to 86·9. Total Force.

If it were necessary, however, to adduce evidence that other influences than those of a malarial character excite rheumatism, it would be found in the foregoing table, where it may be seen that the stations on which this affection most abounds are the West Coast of Africa and the Pacific, stations as previously remarked, dissimilar to each other, not only in their physical characters, but in the duties which devolve on their respective squadrons; and it is curious at least to observe that the next most important stations as respects this disease, and between which also the the difference of ratio of cases is merely fractional, are the East Indies and China, and Australia, than which no two stations can be more dissimilar in every respect. Some solution of the difficulties surrounding any attempt to explain this apparent enigma may be found in the fact that while on some stations malarial influences beget a cachectic state of the system, which is liable to be accompanied with rheumatic and pseudo-rheumatic symptoms of varying severity, on other stations on which no such influences exist, rheumatism may be engendered by peculiarities of climate, impairing the harmony which ought to subsist between the skin and the other emunctories of the body.

Diseases of the Special Senses.—There is a very great decrease in the ratio of these diseases as compared with the year 1861, when however the ratio was very large, owing to an epidemic of ophthalmia in several of the vessels on the China Station.

Diseases of the Skin and Cellular Tissue.—There were four deaths from erysipelas during the year; one from scrofulous disease, eight from abscesses, two from ulcers, and one from pyæmia. The ratio of mortality is the same as in the previous year.

There were five deaths under the head of dyspepsia and debility, nine from dropsy, four from cancer, and one from purpura.

Total Force.

Average Number Sick Daily.—The total number of men daily sick of continued and remittent fevers was about 178; of yellow fever, four or five; ague about thirty-one; of the various forms of eruptive fever, ten, six of whom were labouring under small-pox. The daily loss of service from diseases of the brain and nervous system was about forty-four, which in point of ratio is precisely the same as in the preceding year. From diseases of the respiratory organs the daily loss of service was considerably less than in 1861, a circumstance mainly attributable to the improved condition of the Mediterranean Squadron as respects these affections. In that year the daily loss of service from diseases of these organs was in the ratio of 7·3 per 1.000 of mean force, whereas in the present year it is only 5·8. There was a daily loss from diseases of the organs of circulation equal to about fifty men; from affections of the alimentary canal, chiefly dysentery and diarrhœa, the loss was equal to 198 men; and from diseases of the liver and spleen about twenty-one men. The daily loss of service from diseases of the genito-urinary organs was equal to about 597 men, or in the ratio of 9·9 per 1,000 of mean force, which is a decrease of 1·2 per 1,000 as compared with the preceding year. The daily loss of service from rheumatism, gout and diseases of the bones and joints was equal to 260 men; from diseases of the special senses about forty-four; from diseases of the skin and cellular tissue 951, the prevailing affections being boils and abscesses, or ulcers. From wounds and injuries of various kinds the daily loss of service was equal to about 530 men.

The ratio per 1,000 of mean force of men daily sick from all diseases and injuries, of invaliding and of deaths, on the different stations in 1862, is shown in the following Table—

STATIONS.	Ratio per 1,000 of Men Sick Daily.	Ratio per 1,000 of Invaliding.	Ratio per 1,000 of Deaths.
Home	48·2	30·8	8·2
Mediterranean	55·6	35·1	9·7
North America and West Indies	56·1	32·3	20·2
Brazils	58·3	40·8	16·9
Pacific	49·6	34·	8·6
West Coast of Africa	54·4	23·2	21·9
Cape of Good Hope	97·3	32·2	23·7
East Indies and China	92·5	46·7	66·3
Australia	43·2	12·6	9·5
Irregular Force	70·1	34·5	9·5

Summary

Summary.—The total force in 1862 was 58,870, and the total number daily sick was 3,370, which is in the ratio of 57· per 1,000 of mean force. Total Force.

There were 88,661 cases of disease and injury under treatment throughout the year, being in the ratio of 1506· per 1,000, or almost exactly three entries on the sick list to every two men in the force. Each of these cases was on an average nearly fourteen days under treatment, and the total number of days' sickness being 1,230,120, gave a mean of about eighteen days' sickness to each man of the force.

The total number invalided was 1,944, or 33· per 1,000, and the total number of deaths was 902, which is in the ratio of 15·3 per 1,000, a fractional increase under both heads as compared with the preceding year. If the ratios of deaths from what may be termed casualties, including under this head yellow fever, cholera, and wounds and injuries, is deducted from this total, the result would be a death rate in the naval service from all other affections of only 9·6 per 1,000 of mean force.

TABLE, No. 1.

SHOWING the Number of CASES of all DISEASES and INJURIES, and the Number INVALIDED and DEAD, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	4,618	78·4	39	·6	102	1·6
Yellow Fever	162	·5	2	- -	57	·9
Intermittent Fever	1,472	35·	7	·1	—	—
Small-pox	103	1·7	- -	- -	18	·3
Measles	25	·3	—	—	—	—
Scarlatina	41	·6	- -	- -	1	—
Disease of the Brain	16	·2	9	·1	9	·1
Apoplexy	49	·8	3	- -	14	·2
Epilepsy	225	3·8	105	1·7	2	—
Paralysis	51	·8	23	·3	6	—
Insanity	46	·7	21	·3	—	—
Delirium Tremens	192	3·2	1	- -	10	·1
Headache, &c.	633	10·7	26	·4	—	—
Inflammation of the Lungs and Pleura	876	14·8	65	1·1	31	·5
Phthisis and Hæmoptysis	378	6·4	319	5·4	122	2·
Influenza and Catarrh	8,894	150·9	—	—	—	—
Cynanche	2,463	41·8	- -	- -	1	—
Asthma	65	·9	6	—	—	—
Functional and Organic Disease of the Heart	490	8·3	184	3·1	33	·5
Hæmorrhoids	236	4·	5	—	—	—
Varix	71	·9	21	·3	—	—
Aneurism	- -	- -	2	- -	7	·1
Phlebitis	- -	- -	- -	- -	1	—
Inflammation of the Stomach and Bowels	88	1·4	11	·1	24	·4
Dysentery	670	11·3	71	1·2	81	1·3
Diarrhœa	5,906	99·9	25	·4	13	·2
Cholera	170	2·7	- -	- -	90	1·5
Constipation and Cholic	1,209	30·5	—	—	—	—
Inflammation of the Liver	166	2·8	31	·5	11	·1
Jaundice	229	3·7	—	—	—	—
Splenitis	3	—	—	—	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	74	1·2	12	·1	10	·1
Syphilis	4,521	76·7	79	2·3	2	—
Gonorrhœa	1,485	25·2	—	—	—	—
Orchitis	1,155	19·6	10	·1	—	—
Stricture	215	3·6	29	·4	1	—
Incontinence of Urine, &c.	53	·9	21	·3	—	—
Rheumatism	4,824	81·9	173	2·9	1	—
Gout	67	·9	1	—	—	—
Disease of the Bones and Joints	305	5·1	46	·7	—	—
Ophthalmia	772	13·1	22	·3	—	—
Amaurosis and Cataract	58	·9	41	·6	—	—
Otitis and Deafness	265	4·5	26	·4	—	—
Erysipelas	193	3·2	6	- -	4	—
Scrofula	84	1·4	31	·5	1	—
Bubo (*Symp.*)	864	14·6	4	—	—	—
Phlegmon and Abscess	15,452	262·3	30	·5	8	·1
Ulcer	6,369	108·1	98	1·5	2	—
Psora	1,907	32·3	—	—	—	—
Eruptions, &c.	1,276	21·6	16	·2	—	—
Pyæmia	- -	- -	- -	- -	1	—
Dyspepsia and Debility	3,022	51·3	67	1·1	5	—
Scurvy	16	·2	—	—	—	—
Dropsy	95	1·6	11	·1	9	·1
Worms	89	1·5	1	—	—	—
Cancer	3	- -	- -	- -	4	—
Purpura	7	- -	- -	- -	1	—
Wounds and Injuries	15,117	256·7	160	2·7	100	1·6
Burns and Scalds	677	14·9	1	- -	1	—
Hernia	130	2·2	81	1·3	—	—
Drowned	- -	- -	- -	- -	96	1·6
Poison	15	·2	2	- -	1	—
Asphyxia	3	- -	- -	- -	3	—
Tetanus	- -	- -	- -	- -	1	—
Suicide	1	- -	- -	- -	11	·1
Murdered	- -	- -	- -	- -	2	—
Not stated	- -	- -	- -	- -	5	—
TOTAL	88,661	1506·	1,944	33·	902	15·3

Table, No. 2.

Showing the Mean Force; the Number of Cases; the Number of Days' Sickness; with the Ratios on the different Stations.

STATION.	Mean Force.	Number of Cases of Disease and Injury.	Number of Cases per Man.	Number of Days' Sickness on Board.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.	Number discharged to Hospital.	Ratio per 1,000 of Mean Force.	Number of Days' Sickness in Hospital.	Average Number of Men Daily in Hospital.	Ratio per 1,000 of Mean Force.	Total Number of Days' Sickness.	Total Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Home - - -	20,760	23,641	1·1	232,523	637·	30·6	2,792	134·8	133,431	365·5	17·6	365,954	1002·5	48·2
Mediterranean -	9,950	15,423	1·5	170,013	465·7	46·8	652	65·2	32,301	88·4	8·8	202,314	554·1	55·6
North America and West Indies -	10,135	16,543	1·6	185,565	508·3	50·1	883	87·1	22,140	60·6	6·	207,705	569·	56·1
South East Coast of America - -	1,420	2,315	1·6	29,485	80·7	56·8	46	32·3	782	2·1	1·4	30,267	82·9	58·3
Pacific - - -	2,760	4,132	1·4	44,449	121·7	44·1	128	46·3	5,599	15·3	5·5	50,048	137·	49·6
West Coast of Africa	2,190	3,743	1·7	37,825	103·6	47·3	133	60·7	5,765	15·7	7·1	43,590	119·3	54·4
Cape of Good Hope -	1,180	2,990	2·5	32,138	88·	74·5	80	67·7	9,898	27·	22·8	42,036	115·	97·3
East Indies and China	3,570	8,107	2·2	103,178	282·6	79·1	333	93·8	17,488	47·9	13·4	120,666	330·5	92·5
Australia - -	945	1,122	1·1	14,077	38·5	40·7	19	20·1	859	2·4	2·5	14,936	40·9	43·2
Irregular - -	5,960	10,645	1·7	107,832	295·4	49·5	74	12·3	44,772	122·6	20·5	152,604	418·	70·1
Total - - -	58,870	88,661	1·5	957,085	2622·1	44·5	5,140	87·3	273,035	748·	12·6	1,230,120	3370·1	57·1

Table, No. 3.

Showing the Number of Men Invalided and Dead from Disease and Injury on the different Stations, with the Ratios per 1,000 of Mean Force.

STATION.	Number of Men Invalided for Disease.	Ratio per 1,000 of Mean Force.	Number of Men Invalided for Injuries.	Ratio per 1,000 of Mean Force.	Total Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths from Disease.	Ratio per 1,000 of Mean Force.	Number of Deaths from Injuries.	Ratio per 1,000 of Mean Force.	Total Number of Deaths.	Ratio per 1,000 of Mean Force.
Home - - - - -	554	26·8	86	4·	640	30·8	128	6·2	45	2·	173	8·2
Mediterranean - - -	312	31·3	38	3·8	350	35·1	70	7·	27	2·7	97	9·7
North America and West Indies -	297	29·4	31	2·9	328	32·3	170	17·2	35	3·	205	20·2
South East Coast of America -	50	35·2	8	5·6	58	40·8	13	9·2	11	7·7	24	16·9
Pacific - - - - -	85	30·8	9	3·2	94	34·	16	5·8	8	2·8	24	8·6
West Coast of Africa - -	43	19·6	8	3·6	51	23·2	36	16·5	12	5·4	48	21·9
Cape of Good Hope - - -	32	27·2	6	5·	38	32·2	5	2·3	23	19·4	28	23·7
East Indies and China - -	151	42·3	16	4·4	167	46·7	204	57·6	33	9·	237	66·3
Australia - - - -	10	10·5	2	2·1	12	12·6	4	4·3	5	5·2	9	9·5
Irregular - - - -	166	27·8	40	6·5	206	34·5	38	6·3	19	3·	57	9·5
Total - - -	1,700	28·8	244	4·1	1,944	33·	684	11·6	218	3·7	902	15·3

Table, No. 4.

Showing the Number of Days' Sickness from each Disease and from Injuries, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	50,576	14,526	65,102	178·3	3·
Yellow Fever	1,189	527	1,716	4·5	—
Intermittent Fever	10,383	1,090	11,473	31·4	—
Small-pox	1,613	680	2,293	6·2	·1
Measles	110	257	367	1·	—
Scarlatina	215	850	1,065	2·9	—
Disease of the Brain	213	438	651	1·7	—
Apoplexy	476	112	588	1·6	—
Epilepsy	2,432	1,350	3,782	10·3	·1
Paralysis	943	1,640	2,583	7·	·1
Insanity	451	925	1,376	3·7	—
Delirium Tremens	1,360	790	2,150	5·8	—
Headache, &c.	3,573	1,447	5,020	13·7	·2
Inflammation of the Lungs and Pleura	14,968	13,278	28,246	77·3	1·3
Phthisis and Hæmoptysis	7,014	14,788	21,802	59·7	1·
Influenza and Catarrh	56,919	2,971	59,890	164·	2·7
Cynanche	17,187	1,193	18,380	50·3	·8
Asthma	821	218	1,039	2·8	—
Functional and Organic Disease of the Heart	7,696	6,772	14,468	39·6	·6
Hæmorrhoids	1,973	1,041	3,014	8·2	·1
Varix	628	441	1,069	2·9	—
Inflammation of the Stomach and Bowels	1,244	1,054	2,298	6·2	·1
Dysentery	13,521	7,466	20,987	57·4	·9
Diarrhœa	37,912	3,218	41,130	112·6	1·9
Cholera	1,649	213	1,862	5·1	—
Constipation and Colic	5,831	294	6,125	16·7	·2
Inflammation of the Liver	2,871	1,783	4,654	12·7	·2
Jaundice	2,978	289	3,267	8·9	·1
Splenitis	58	-	58	—	—

TABLE, No. 4.—Showing the Number of Days' Sickness from each Disease, &c.—*continued.*

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	1,524	937	2,461	6·7	·1
Syphilis	91,613	71,370	162,983	446·5	7·5
Gonorrhœa	19,670	3,346	23,016	63·	1·
Orchitis	17,568	4,166	21,734	59·5	1·
Stricture	3,163	3,317	6,480	17·7	·3
Incontinence of Urine, &c.	747	569	1,316	3·5	—
Rheumatism	58,738	25,542	84,280	230·9	3·9
Gout	779	23	802	2·1	—
Disease of the Bones and Joints	5,732	4,135	9,867	27·	·4
Ophthalmia	8,888	2,572	11,460	31·3	·5
Amaurosis and Cataract	811	684	1,495	4·	—
Otitis and Deafness	2,421	698	3,119	8·5	·1
Erysipelas	2,452	1,319	3,771	10·3	·1
Scrofula	1,834	2,413	4,247	11·6	·1
Bubo (*Symp.*)	18,253	2,585	20,838	57·	·9
Phlegmon and Abscess	132,513	10,178	142,691	390·9	6·6
Ulcer	115,626	21,399	137,025	375·4	6·3
Psora	14,540	927	15,467	42·3	·7
Eruptions, &c.	17,874	5,775	23,649	64·1	1·
Dyspepsia and Debility	21,501	7,005	28,506	78·	1·3
Scurvy	330	152	482	1·3	—
Dropsy	1,267	1,839	3,106	8·5	·1
Worms	580	121	701	1·9	—
Purpura	212	-	212	·6	—
Cancer	56	43	99	·2	—
Wounds and Injuries	160,324	21,565	181,889	498·3	8·4
Burns and Scalds	9,247	267	9,514	26·	·4
Hernia	1,866	398	2,264	6·1	·1
Asphyxia	6	-	6	—	—
Poison	146	39	165	·4	—
TOTAL	957,085	273,035	1,230,120	3370·1	57·1

Table, No. 5.

Showing the Number Invalided on the several Stations.

CAUSE of INVALIDING.	Home.	Mediterranean.	North America and West Indies.	South East Coast of America.	Pacific.	West Coast of Africa.	Cape of Good Hope.	East Indies and China.	Australia.	Irregular.	Total.
Continued and Remittent Fever	2	12	14	2	1	4	3	1	–	–	39
Yellow Fever	–	–	2	–	–	–	–	–	–	–	2
Intermittent Fever	3	–	–	1	–	1	1	1	–	–	7
Disease of the Brain	3	3	1	–	2	–	–	–	–	–	9
Apoplexy	–	1	–	1	–	–	–	–	–	1	3
Epilepsy	40	15	18	2	9	6	1	3	–	11	105
Paralysis	8	3	3	–	4	1	1	1	–	2	23
Delirium Tremens	1	–	–	–	–	–	–	–	–	–	1
Insanity	7	5	2	–	3	–	1	–	–	3	21
Neuralgia, &c.	13	3	3	–	–	1	1	2	–	3	26
Inflammation of the Lungs and Pleura	18	14	14	3	3	2	2	4	–	5	65
Phthisis	98	76	55	10	11	3	1	15	3	47	319
Asthma, &c.	3	1	–	–	–	–	–	–	–	2	6
Functional and Organic Disease of the Heart	89	33	23	2	10	4	2	7	–	14	184
Hæmorrhoids	–	2	2	–	–	1	–	–	–	–	5
Varix	9	3	2	–	–	1	1	2	1	2	21
Inflammation of the Stomach and Bowels	3	1	3	–	1	–	–	2	–	1	11
Dysentery	6	5	15	1	2	3	4	35	–	–	71
Diarrhœa	2	1	10	3	1	–	–	7	–	1	25
Inflammation of the Liver	4	4	3	3	5	–	3	7	–	2	31
Inflammation of the Bladder and Kidneys	6	–	2	–	2	–	–	–	1	1	12
Syphilis	22	11	13	1	6	–	1	15	–	10	79
Stricture	6	2	7	1	2	4	–	4	–	3	29
Orchitis	3	–	3	–	2	–	–	1	–	1	10
Incontinence of Urine, &c.	17	1	1	–	1	1	–	–	–	–	21
Rheumatism	55	40	31	5	6	2	4	16	1	13	173
Gout	–	–	–	–	1	–	–	–	–	–	1
Disease of the Bones, &c.	13	5	7	3	1	–	1	4	3	9	46
Ophthalmia	6	5	2	1	–	1	–	4	–	3	22
Amaurosis and Cataract	22	8	3	1	1	–	1	1	1	3	41
Otitis and Deafness	11	4	3	1	–	–	–	–	–	7	26
Erysipelas	1	–	3	–	1	–	–	–	–	1	6
Abscess	7	6	10	2	1	–	1	–	–	3	30
Ulcer	22	24	24	5	4	1	2	12	–	4	98
Scrofula	15	4	6	–	1	1	–	2	–	2	31
Bubo (*Symp.*)	–	3	–	1	–	–	–	–	–	–	4
Eruptions	10	5	–	–	1	–	–	–	–	–	16
Dyspepsia and Debility	25	8	11	–	2	6	1	5	–	9	67
Dropsy	4	2	1	1	1	–	–	–	–	2	11
Worms	–	–	–	–	–	–	–	–	–	1	1
Aneurism	–	2	–	–	–	–	–	–	–	–	2
Wounds and Injuries	52	22	25	6	6	6	5	13	2	23	160
Burns and Scalds	–	–	–	–	–	–	–	–	–	1	1
Poison	1	–	–	–	–	–	1	–	–	–	2
Hernia	33	16	6	2	3	2	–	3	–	16	81
Total	640	350	328	58	94	51	38	167	12	206	1,944

TABLE, No. 6.

SHOWING the Number of DEATHS on the several STATIONS.

CAUSE of DEATH.	Home.	Mediterranean.	North America and West Indies.	South East Coast of America.	Pacific.	West Coast of Africa.	Cape of Good Hope.	East Indies and China.	Australia.	Irregular.	TOTAL.	Ratio per Cent. of Deaths from Disease.	Ratio per Cent. of Deaths from Injury.	Ratio per Cent. of Deaths from all Causes.
Continued and Remittent Fever	10	21	49	2	–	11	–	8	–	1	102	14·9	–	11·3
Yellow Fever	–	–	49	–	–	7	–	–	–	1	57	8·3	–	6·3
Small-pox	1	4	–	–	–	–	–	13	–	–	18	2·6	–	1·9
Scarlatina	1	–	–	–	–	–	–	–	–	–	1	·1	–	·1
Disease of the Brain	2	1	3	–	1	–	–	–	–	2	9	1·3	–	·9
Apoplexy	2	1	2	1	1	2	–	1	–	4	14	2·	–	1·5
Epilepsy	1	–	–	–	–	–	–	–	–	1	2	·2	–	·2
Paralysis	2	1	–	–	–	2	1	–	–	–	6	·8	–	·6
Delirium Tremens	2	1	1	–	–	1	–	2	–	3	10	1·4	–	1·1
Inflammation of the Lungs and Pleura	17	5	4	–	1	1	–	1	–	2	31	4·5	–	3·4
Phthisis and Hæmoptysis	43	16	22	3	8	2	1	9	1	17	122	17·8	–	13·5
Cynanche	–	1	–	–	–	–	–	–	–	–	1	·1	–	·1
Disease of the Heart	10	2	10	2	1	1	2	2	–	3	33	4·8	–	3·6
Aneurism	5	1	1	–	–	–	–	–	–	–	7	1·	–	·7
Inflammation of the Stomach and Bowels	7	4	6	1	–	–	–	2	2	2	24	3·5	–	2·6
Cholera	–	–	–	–	–	–	1	89	–	–	90	13·3	–	9·9
Dysentery	1	2	11	1	1	7	–	57	–	1	81	11·	–	8·9
Diarrhœa	1	–	–	–	–	–	–	12	–	–	13	1·9	–	1·4
Inflammation of the Liver	4	2	2	–	1	1	–	1	–	–	11	1·6	–	1·2
Inflammation of the Bladder and Kidneys	6	–	1	–	–	–	–	2	–	1	10	1·4	–	1·1
Syphilis	–	–	1	–	–	–	–	1	–	–	2	·2	–	·2
Stricture of the Urethra	1	–	–	–	–	–	–	–	–	–	1	·1	–	·1
Rheumatism	–	1	–	–	–	–	–	–	–	–	1	·1	–	·1
Erysipelas	3	1	–	–	–	–	–	–	–	–	4	·5	–	·4
Scrofula	–	–	1	–	–	–	–	–	–	–	1	·1	–	·1
Abscess	2	1	3	–	1	–	–	–	1	–	8	1·1	–	·8
Ulcer	–	–	1	–	1	–	–	–	–	–	2	·2	–	·2
Pyœmia	–	–	1	–	–	–	–	–	–	–	1	·1	–	·1
Phlebitis	–	–	–	1	–	–	–	–	–	–	1	·1	–	·1
Dyspepsia and Debility	1	1	1	–	–	–	–	2	–	–	5	·7	–	·5
Purpura	–	–	1	–	–	–	–	–	–	–	1	·1	–	·1
Dropsy	4	2	–	1	–	1	–	1	–	–	9	1·3	–	·9
Cancer	–	2	–	–	–	–	–	1	–	–	3	·4	–	·3
Stricture of the Æsophagus	1	–	–	–	–	–	–	–	–	–	1	·1	–	·1
Wounds and Injuries	16	18	13	4	4	9	20	10	2	4	100	–	45·4	11·
Burns and Scalds	–	1	–	–	–	–	–	–	–	–	1	–	·4	·1
Drowned	26	6	18	7	2	2	3	17	2	13	96	–	43·6	10·6
Suicide	3	1	2	–	2	1	–	–	–	2	11	–	5·	1·2
Asphyxia	–	1	1	–	–	–	–	1	–	–	3	–	1·3	·3
Poison	–	–	1	–	–	–	–	–	–	–	1	–	·4	·1
Murdered	–	–	–	–	–	–	–	2	–	–	2	–	·9	·2
Tetanus	–	–	–	–	–	–	–	–	1	–	1	–	·4	·1
Not stated	1	–	–	1	–	–	–	3	–	–	5	–	2·2	·5
TOTAL	173	97	205	24	21	48	28	237	9	57	902	100·	100·	100·

INDEX

TO SHIPS AND STATIONS,

WITH

LIST OF MEDICAL OFFICERS.

1862.

N.B.—Where the names of two or more Surgeons appear to one Ship, it is to be understood that these officers were serving in the vessel during different periods of the year; or, in some instances, that a Surgeon was borne in lieu of an Assistant Surgeon.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Aboukir	West Indies	Surgeons	L. J. Monteith; C. D. Shephard.
		Assistant Surgeons	G. Jackson; W. P. Clapp; C. H. Rason; F. H. Browne.
Acorn	East Indies	Assistant Surgeon in charge.	G. W. L. Sutherland.
Actæon	East Indies	Surgeon	A. Adams.
Adventure	Irregular	Surgeon	S. Clift.
		Assistant Surgeon	H. H. J. Sterling.
Agamemnon	West Indies	Surgeon	A. Graham, M.D.
		Assistant Surgeons	T. A. O'Flaherty, M.D.; G. M. Egles.
Ajax	Home	Surgeon	Henry Piers.
		Assistant Surgeon	Peter M. Roe.
Alacrity	Mediterranean	Surgeon	P. W. Govett.
Alecto	West Coast of Africa	Assistant Surgeon in charge.	R. Evans.
Algerine	East Indies	Assistant Surgeon in charge.	G. Mair; J. L. Whitney.
Algiers	Mediterranean	Surgeon	J. S. Davidson.
		Assistant Surgeons	G. St. A. Campbell; S. H. Knaggs.
Amphion	Mediterranean	Surgeon	G. Gordon.
		Assistant Surgeons	B. Gregory; T. D. Allison, M.D.
Antelope	West Coast of Africa	Assistant Surgeons in charge.	R. C. Fisher; J. Parker.
Ardent	Brazils	Surgeon	G. B. Moore.
		Assistant Surgeon	J. F. Fitzgerald.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Argus	Irregular	Surgeon	T. B. Purchas.
		Assistant Surgeon	S. M'Bean.
Ariadne	West Indies	Surgeon	J. C. Ingles.
		Assistant Surgeon	G. W. L. Harrison.
Ariel	Cape of Good Hope	Surgeons	J. Sproule; A. H. Woodifield, M.D. (acting.)
Arrogant	West Coast of Africa	Surgeon	H. Gimlett, M.D.
		Assistant Surgeons	T. Kipling; R. F. Bridgford; E. Mulcahy.
Asia	Home	Surgeons	J. C. Sabben; S. W. Webb.
		Assistant Surgeons	J. Jefferson, M.D.; W. F. C. Bartlett; J. W. S. Meiklejohn, M.D.; W. Anderson.
Bacchante	Pacific	Surgeon	A. Brown, M.D.
		Assistant Surgeons	A. M'Bride, M.D.; W. Redmond.
Banshee	Mediterranean	Surgeon	R. Picken.
Barracouta	West Indies	Surgeon	G. B. Newton.
		Assistant Surgeon	S. Bamfield.
Barrosa	Irregular	Surgeon	J. Christie, M.D.
		Assistant Surgeon	R. L. B. Head.
Beagle	East Indies	Assistant Surgeon in charge.	T. Coghlan, M.D.
Black Prince	Home	Surgeon	L. C. Urquhart, M.D.
		Assistant Surgeons	E. P. Forrest; J. W. Jones.
Blenheim	Home	Surgeons	R. W. Clarke; J. Bernard.
		Assistant Surgeon	R. Purves.
Bloodhound	West Coast of Africa	Assistant Surgeon in charge.	W. J. Eames.
Boscawen	Home	Surgeon	H. Richardson, M.D.
Brilliant	Home	Surgeon	J. Ternan, M.D.
Brisk	West Coast of Africa	Surgeon	T. J. Haran.
		Assistant Surgeons	J. T. Moore; J. O'Brien.
Britannia	Home	Surgeons	W. M. Saunders, M.D.; J. T. U. Bremner, M.D. (for cadets).
		Assistant Surgeons	W. R. Bennett, M.D.; T. A. O'Flaherty, M.D.
Buffalo	Irregular	Assistant Surgeon in charge.	R. C. M'Clement.
Bulldog	West Indies	Surgeon	J. D. Cronin, M.D.
		Assistant Surgeon	D. Mac N. Johnston, M.D.
Cadmus	West Indies	Surgeon	W. H. Adam.
		Assistant Surgeon	S. Grose.
Cæsar	Irregular	Surgeon	J. Caldwell.
		Assistant Surgeons	M. Magill; C. Strickland.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Cambridge -	Home - - -	Surgeon - -	T. Seccombe.
		Assistant Surgeons	W. H. Clarke; H. F. Nathan; C. L. Cunningham.
Cameleon -	Pacific - - -	Surgeon - -	A. Fisher, M.D.
		Assistant Surgeon	E. Fenn.
Castor - -	Home - - -	Surgeon - -	W. R. Dalton.
Centaur - -	East Indies - -	Surgeon - -	H. Arnot, M.D.
		Assistant Surgeon	J. M'Innes, M.D.
Challenger -	West Indies - -	Surgeon - -	W. N. Brake.
		Assistant Surgeon -	W. J. Thomason.
Chanticleer -	Home - - -	Surgeon - -	M. P. S. Ward.
		Assistant Surgeon	R. W. Brigstocke.
Charybdis -	Pacific - - -	Surgeon - -	C. K. Ord, M.D.
		Assistant Surgeon	H. Rickard.
Chatham Reserve.	Home - - -	Assistant Surgeons in charge.	P. Mansfield, M.D.; C. Strickland.
Clio - -	Pacific - - -	Surgeon - -	F. W. Blake, M.D.
		Assistant Surgeon	H. A. Close.
Cockatrice -	Mediterranean -	Assistant Surgeon in charge.	M. O. Hurlstone.
Colossus - -	Home - - -	Surgeon - -	J. A. Miller.
		Assistant Surgeon	C. J. Devonshire, M. D.
Conqueror's Crew.	Irregular - -	Surgeon - -	L. C. Urquhart, M.D.
		Assistant Surgeons	E. P. Forrest; J. Middleton, M.D.
Coquette -	Irregular - - / East Indies - -	Surgeon - -	W. G. Hill.
Cordelia - -	Irregular - - -	Surgeon - -	D. G. Pendrith.
		Assistant Surgeon	S. J. Burke.
Cormorant -	Irregular - - / East Indies - -	Surgeon - -	R. Eustace.
Cornwallis -	Home - - -	Surgeon - -	T. Somerville.
		Assistant Surgeons	J. H. Johnston; F. Piercy; G. Jackson.
Coromandel -	East Indies - -	Assistant Surgeon in charge.	T. L. Bickford.
Cossack - -	Irregular - -	Surgeon (acting) -	W. P. J. Purcell.
Cumberland -	Home - - -	Surgeon - -	W. Loney.
		Assistant Surgeons	C. G. Symons; A. Cooper; W. G. Ridings.
Curaçoa - -	Brazils - - -	Surgeon - -	F. Negus.
		Assistant Surgeon	M. W. Cowan, M.D.
Curlew - -	Brazils - - -	Surgeons - -	R. Creighton; S. Sweetnam (acting).
Cygnet - -	West Indies - -	Assistant Surgeon in charge.	G. Duncan.
Dædalus -	Home - - -	Surgeon - -	W. B. Fegen.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Dart - -	West Coast of Africa	Assistant Surgeon in charge.	D. B. Thomas.
Dasher - -	Home - - -	Assistant Surgeons in charge.	G. Molloy; W. P. J. Purcell, M.D.
Dauntless -	Home - - -	Surgeon - -	G. D. Maclaren.
		Assistant Surgeons	J. W. Dobbin; J. R. Anderson.
Dee - -	Home - - -	Assistant Surgeon in charge.	P. W. Rolston.
Defence - -	Home - - -	Surgeon - -	C. F. A. Courtney.
		Assistant Surgeon	J. Paterson, M.D.
Desperate -	West Indies - -	Surgeon - -	D. Saunders.
		Assistant Surgeon	W. Johnston, M.D.
Devastation -	Irregular - -	Surgeon - -	C. Sproull.
	Pacific - - -	Assistant Surgeons	C. Atchison; E. B. Bogg, M.D.
Diadem - -	West Indies - -	Surgeon - -	J. Ternan, M. D.
		Assistant Surgeons	B. G. Delandre; M. J. Bateson.
Donegal - -	West Indies - -	Surgeon - -	J. King
		Assistant Surgeons	F. Piercy; E. Miles.
Doris - -	Mediterranean -	Surgeon - -	P. Digan, M.D.
		Assistant Surgeons	J. Coogan; T. W. Orwin; J. Jefferson, M.D.; B. Browning.
Doterel - -	Brazils - - -	Assistant Surgeon in charge.	N. T. Connolly.
Dromedary -	Irregular - -	Assistant Surgeon in charge.	J. W. Dobbin.
Eagle - -	Home - - -	Surgeons - -	H. Richardson, M.D.; J. Nihill, M.D.
Eclipse - -	Irregular - -	Surgeon - -	S. A. Willis, M.D.
Edgar - -	Irregular - -	Surgeon - -	W. H. Sloggett.
	Home - - -	Assistant Surgeons	P. Comrie; D. Hilston; J. Mockridge.
Edinburgh -	Home - - -	Surgeon - -	J. Bower, M.D.
		Assistant Surgeon	F. A. Brice, M.D.
Emerald - -	Home - - -	Surgeon - -	J. Cockin.
		Assistant Surgeons	D. M'Carthy; J. A. Allan.
Encounter -	East Indies - -	Surgeon - -	A. Irwin.
		Assistant Surgeon	A. Hogg.
Espoir - -	West Coast of Africa	Assistant Surgeon in charge.	C. H. Slaughter.
Euryalus -	Irregular - -	Surgeon - -	D. L. Morgan.
	East Indies - -	Assistant Surgeons	C. R. Godfrey; E. A. Birch.
Excellent -	Home - - -	Surgeon - -	J. Thomson (c.).
		Assistant Surgeons	W. G. Hill; W. Yarde, M.D.; J. Farrelly; J. Courtenay.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Exmouth	Mediterranean	Surgeon Assistant Surgeons	H. Trevan, M.D. A. Minnoch; T. Warden, M.D.
Falcon	West Coast of Africa	Surgeon Assistant Surgeon	W. B. C. Christy. W. Roche (b.).
Fawn	Australia	Surgeon Assistant Surgeons	W. Fasken, M.D. J. Clarkson; M. Coates.
Ferret	Home	Assistant Surgeons in charge.	A. Collins; R. Hague, M.D.
Firebrand	Mediterranean	Surgeon Assistant Surgeon	J. Long, M.D. W. D. Longfield.
Firefly	Mediterranean	Surgeon	J. Flanagan.
Fisgard	Home	Surgeon Assistant Surgeon	M. T. West. R. Humphreys.
Flying Fish	West Coast of Africa	Surgeon	J. N. Dick.
Formidable	Home	Surgeon Assistant Surgeon	J. H. Carruthers. R. H. Carroll.
Forte	Brazils	Surgeon Assistant Surgeons	J. I. Crawford. S. Sweetnam; R. J. M'Morris; J. F. Fitz-Gerald.
Fox	Home	Assistant Surgeon in charge.	P. W. Rolston.
Foxhound	Mediterranean	Surgeon	J. Johnstone.
Galatea	Irregular	Surgeons Assistant Surgeons	J. Browne, M.D.; J. B. Ricards. A. Collins; T. T. Riordan.
Gannet	Mediterranean	Surgeon Assistant Surgeon	J. Murphy. T. S. Burnett.
Geyser	Home	Surgeon Assistant Surgeon	C. A. Ducket, M.D. T. Cann, M.D.
Gorgon	Cape of Good Hope	Surgeon Assistant Surgeon	D. Ramsay, M.D. C. P. Mulvany.
Greyhound	West Indies	Surgeons Assistant Surgeon	M. Hamilton; W. J. Lewis; T. Roche; D. M. Shaw. M. J. Rahilly, M.D.
Griffon	West Coast of Africa	Assistant Surgeon in charge.	F. F. Flynn.
Handy	West Coast of Africa	Assistant Surgeon in charge. Surgeon Assistant Surgeon	T. W. Hughes. H. Eales. J. T. Moore.
Harrier	Australia	Surgeon Assistant Surgeons	W. G. J. Ayre. W. A. Turner; D. Hilston, M.D.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Hastings -	Home - - -	Surgeons - -	J. Nihill, M.D.; J. G. Risk.
Hawke - -	Home - - -	Surgeon - -	J. G. Risk; D. Thomas.
		Assistant Surgeon	R. C. M'Clement.
Hecaté - -	Pacific - - -	Surgeon - -	C. B. Wood.
		Assistant Surgeon	S. Campbell.
Hero - -	West Indies - -	Surgeon - -	J. Vaughan.
		Assistant Surgeons	J. A. Skene; J. P. Courtenay.
Hesper - -	East Indies - -	Assistant Surgeon in charge.	F. C. Magrath.
Hibernia -	Mediterranean - -	Surgeon - -	T. R. Pickthorn.
		Assistant Surgeons	B. Browning; J. Jefferson, M.D.
Himalaya -	Irregular - -	Surgeon - -	W. T. Wilson.
		Assistant Surgeon	H. B. Wynter.
Hogue - -	Home - - -	Surgeon - -	J. Walsh.
		Assistant Surgeon	A. M'Kenna.
Hornet - -	East Indies - -	Surgeon - -	W. H. Baxter.
		Assistant Surgeon	G. H. Maunsell.
Hydra - -	West Indies - -	Surgeon - -	J. Lilburne.
		Assistant Surgeons	J. C. Grigg; D. R. Alcock.
Icarus - -	Mediterranean - -	Surgeon - -	J. D. Macdonald.
		Assistant Surgeon	J. Donovan.
Imaum - -	West Indies - -	Surgeon - -	C. D. Shephard.
		Assistant Surgeons	C. H. Rason; F. H. Browne.
Immortalité -	West Indies - -	Surgeon - -	W. L. Gordon, M.D.
		Assistant Surgeons	W. Carmichael, M.D.; G. Monteath, M.D.
Impérieuse -	East Indies - -	Surgeon - -	J. Henderson, M.D.
		Assistant Surgeons	E. B. Broster; J. Ligertwood, M.D.
Implacable -	Home - - -	Surgeon - -	J. J. Martin.
Impregnable -	Home - - -	Surgeon - -	M. Thomson.
		Assistant Surgeons	R. Borrows, M.D.; G. M. Egles.
Indus - -	Home - - -	Surgeons - -	C. R. Brien, M.D.; J. King.
		Assistant Surgeons	D. Duncan, M.D.; C. Morton.
Industry - -	Irregular - -	Assistant Surgeon in charge.	W. H. Bell, M.D.
Insolent - -	East Indies - -	Assistant Surgeon in charge.	G. Clark.
Intrepid - -	Mediterranean - -	Surgeon - -	O. J. Llewellyn.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Investigator	West Coast of Africa	Assistant Surgeons in charge.	J. A. Hatch.; J. O'Brien; J. Cruickshank.
Jackal	Home	Assistant Surgeon in charge.	R. Atkinson.
James Watt	Mediterranean	Surgeon	W. T. Rogers.
		Assistant Surgeons	W. S. Fisher; D. A. Moxey, M.D.
Jason	West Indies	Surgeons	J. Forbes (d.); R. W. Beaumont.
		Assistant Surgeon	C. C. Mitchinson.
Landrail	West Indies	Assistant Surgeon in charge.	J. S. Dobbyn.
Lapwing	Irregular	Surgeon	R. W. Beaumont.
Lee	Irregular West Coast of Africa	Assistant Surgeon in charge.	A. G. Colquhoun.
Leopard	Irregular	Surgeon	J. Lilburne.
		Assistant Surgeon	G. Laurenson,
Leven	East Indies	Assistant Surgeon in charge.	G. V. Hart.
Liffey	West Indies Irregular	Surgeons	G. Moore, M.D.; R. Hastings, M.D.
		Assistant Surgeons	C. D. M'Carthy; J. Allen; W. F. C. Bartlett; H. F. Nathan.
Lily	Irregular	Surgeon	F. L. Leonard.
Lizard	Home	Assistant Surgeon in charge.	A. J. Ireland, M.D.
London	Mediterranean	Surgeon	T. Stratton, M.D.
		Assistant Surgeons	T. Fulton, M.D.; G. E. Farr.
Madagascar	Brazils	Surgeons	W. Macleod, M.D.; J. Coogan.
		Assistant Surgeon	G. Bolster.
Mæander	West Coast of Africa	Surgeon	W. H. Clarke.
		Assistant Surgeon	F. H. Rose.
Magicienne	Irregular Mediterranean	Surgeon	J. G. T. Forbes.
		Assistant Surgeons	C. A Lees, M.D.
Majestic	Home	Surgeon	J. Stewart, M.D.
		Assistant Surgeons	W. J. Bluett; F. H. Richardson, M.D.
Malacca	Mediterranean	Surgeon	W. Telfer.
		Assistant Surgeons	J. B. Torrance; E. Dann, M.D.
Manilla	East Indies	Assistant Surgeon in charge.	W. Inman, M.D.
Marine Battalion in Mexico.	West Indies	Surgeon	J. Elliott.
		Assistant Surgeons	J. S. Adams; J. R. Anderson.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Marine Detachment at San Juan.	Pacific	Assistant Surgeons in charge.	J. F. Mitchell; A M'Bride, M.D.
Marlborough	Mediterranean	Surgeon Assistant Surgeons	A. E. Mackay, M.D. F. W. Davis, M.D.; H. N. MacLaurin, M.D.; J. T. Middleton, M.D.; G. R. Pickthorn, M.D.
Mars	Mediterranean	Surgeon Assistant Surgeons	J. Harvey. J. Caldwell; A. B. Messer, M.D.
Medea	West Indies	Surgeons Assistant Surgeon	J. Austen; J. Mac E. Wallace.* J. Brown.
Medina	Mediterranean	Surgeon	R. Willcox.
Meeanee	Irregular	Surgeons Assistant Surgeons	J. Andrews (b.); J. Davidson, M.D. G. B. Beale, M.D.; A. Robertson, M.D.
Megæra	Irregular	Surgeon Assistant Surgeons	F. H. Blaxall, M.D. W. L. Powell; J. Lambert.
Melpomene	West Indies	Surgeons Assistant Surgeons	V. C. Clarke, M.D.; W. Ross, M.D. R. Ratliffe; J. Trimble; G. Curtis.
Mersey	West Indies	Surgeons Assistant Surgeons	D. J. Duigan, M.D.; V. C. Clarke, M.D. J. Noble; W. Anderson.
Miranda	Australia	Surgeon Assistant Surgeon	H. Slade. R. Harding.
Mullet	Irregular West Coast of Africa	Assistant Surgeon in charge.	A. Scott.
Mutine	Pacific	Surgeon Assistant Surgeon	W. H. Cameron. E. J. Butler.
Naiad	Pacific	Assistant Surgeon in charge.	L. Lucas.
Narcissus	Cape of Good Hope	Surgeon Assistant Surgeons	J. Cotton, M.D. A. H. Woodifield, M.D.; J. S. Levis, M.D.; W. H. Sissons.
Neptune	Mediterranean	Surgeon Assistant Surgeons	R. Pottinger. P. Keelan; A. Crosbie, M.D.
Nereus	Pacific	Assistant Surgeons in charge.	J. W. Leahy; W. E. Dillon.
Nile	West Indies	Surgeons Assistant Surgeons	J. W. Reid, M.D.; W. J. Lewis. W. H. Lloyd, M.D.; J. Hanbury; G. Molloy.

* No returns received from this officer.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Nimble	West Indies	Assistant Surgeon in charge.	J. Bradley.
Oberon	Brazils	Surgeon	J. Rorie.
Odin	East Indies	Surgeon	W. Hoggan.
		Assistant Surgeon	J. M. Hunter.
Orestes	Cape of Good Hope	Surgeon	C. E. Playfair.
		Assistant Surgeon	E. Olive.
Orlando	West Indies	Surgeon	W. G. Goldin, M.D.
		Assistant Surgeons	W. Roche; W. F. Ryall.
Orpheus	Irregular	Surgeon	J. M. Tronson, M.D.
	Australia	Assistant Surgeons	M. Coates; J. Clarkson.
Osborne	Irregular	Surgeon	G. B. Hill.
Pantaloon	Irregular	Surgeon	H. Harkan.
		Assistant Surgeon	B. Ninnis, M.D.
Pearl	East Indies	Surgeon	F. F. Morgan.
		Assistant Surgeon	H. S. Smart, M.D.
Pelican	Mediterranean	Surgeon	J. C. Messer, M.D.
		Assistant Surgeon	A. C. Johnston.
Pelorus	Australia	Surgeon	S. Bowden, M.D.
		Assistant Surgeon	R. Edwardes.
Pembroke	Home	Surgeon	T. W. Jewell.
		Assistant Surgeon	H. Maxwell.
Penguin	Cape of Good Hope	Assistant Surgeon in charge.	J. Bishop.
Perseus	Irregular	Surgeon	J. S. Adams.
		Assistant Surgeon	J. M. Bateson.
Peterel	Irregular	Surgeons	A. Stevenson; W. H. Lloyd, M.D.
	West Indies	Assistant Surgeons	D. A. Jemison; G. Curtis.
Phaeton	West Indies	Surgeon	J. T. Caddy, M.D.
		Assistant Surgeons	T. Roche; A. Bolton, M.D.
Philomel	West Coast of Africa	Assistant Surgeon in charge.	J. G. Cruickshank.
Phœbe	Irregular	Surgeon	R. D. Pritchard.
		Assistant Surgeons	J. Noble; H. D. Stanistreet.
Pioneer	East Indies	Surgeon	W. F. MacClinton.
	Australia		
Plover	West Indies	Assistant Surgeon in charge.	G. Goodman.
Porcupine	Irregular	Surgeon	G. V. M'Donogh.
		Assistant Surgeon in charge.	J. Thomson.
President	Home	Surgeon	M. Walling, M.D.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Princess Charlotte	East Indies	Assistant Surgeon in charge.	J. V. N. Blake.
Procris	Mediterranean	Assistant Surgeon in charge.	E. Dann, M.D.
Prometheus	West Coast of Africa	Surgeon Assistant Surgeon	H. Eales. J. Parker.
Psyche	Irregular	Assistant Surgeon in charge.	T. Warden, M.D.
Pylades	Irregular	Surgeon Assistant Surgeon	H. Harkan. J. Horrocks, M.D.
Queen	Mediterranean	Surgeon Assistant Surgeons	D. Thomson, M.D. R. Gilmour; W. Pattullo, M.D.
Racehorse	Irregular	Surgeon	J. E. Fawcett.
Racer	West Indies	Surgeon Assistant Surgeon	G. Duncan, M.D. R. B. O'Toole.
Racoon	Irregular	Surgeon Assistant Surgeon	H. Loney. J. L. Sands.
Ranger	West Coast of Africa	Assistant Surgeon in charge.	C. Keenan.
Rapid	Irregular Cape of Good Hope	Surgeon Assistant Surgeon	D. G. Pendrith. W. Harvey.
Rattler	Irregular	Surgeon Assistant Surgeon	E. M'Sorley. B. H. M'Curdy.
Rattlesneke	Irregular	Surgeon Assistant Surgeon	G. F. A. Drew. F. A. Curran.
Renard	East Indies	Assistant Surgeon in charge.	A. Murphy.
Resistance	Home	Surgeon Assistant Surgeon	R. C. Scott. D. R. Alcock.
Revenge	Home	Surgeon Assistant Surgeon	W. Duirs, M.D. R. R. Siccama; T. N. W. Colahan.
Rhadamanthus	Home	Surgeon	G. P. Cooke.
Rifleman	Irregular East Indies	Assistant Surgeons in charge.	J. Halpin; J. Hutchinson, M.D.
Rinaldo	West Indies	Surgeon Assistant Surgeon	A. L. Archer, M.D. R. Nelson.
Ringdove	East Indies	Assistant Surgeon in charge.	J. C. Eastcott.
Rolla	Home	Assistant Surgeon in charge.	A. S. Pratt.
Rosario	Home	Surgeon Assistant Surgeon	W. Richardson. J. Mulvany.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Royal Adelaide	Home	Surgeon Assistant Surgeons	R. T. C. Scott. W. Connolly, M.D.; A. Mullan; J. Allen.
Russell	Home	Surgeon Assistant Surgeon	J. Bankier, M.D. M. Magill.
St. George	Irregular	Surgeon Assistant Surgeons	J. Stirling, M.D. J. N. J. O'Malley; J. Halpin.
St. Vincent	Home	Surgeon Assistant Surgeons	L. Cunningham, M.D. F. Greene; D. McN. Johnston, M.D.
Sanspareil	West Indies Irregular	Surgeon Assistant Surgeons	J. M'Swiney. J. Thomson; C. Mulvany; I. May; F. V. Dickins; J. M. Arnott.
Sapphire	Irregular	Surgeon	W. J. Hamilton, M.D.
Saracen	East Indies	Assistant Surgeon in charge.	M. Rodgers, M.D.
Satellite	Brazils	Surgeons Assistant Surgeon	J. Little; R. Creighton. M. A. Harte.
Saturn	Home	Surgeon	G. Yeo, M.D.
Scourge	Irregular	Surgeon	J. Young, M.D.
Scout	East Indies	Surgeon Assistant Surgeon	S. Wade. J. F. Parr.
Scylla	Mediterranean	Surgeon Assistant Surgeon	F. Y. Toms. H. Hadlow.
Sealark	Home	Assistant Surgeon in charge.	T. H. Taylor.
Severn	Irregular	Surgeon Assistant Surgeons	H. Loney. W. S. Fisher; J. R. Burke.
Shannon	Home Mediterranean	Surgeon Assistant Surgeons	W. Lawrance. D. O'Connor; G. Robertson, M.D.
Sheldrake	Brazils	Assistant Surgeon in charge.	T. Hamilton.
Sidon	Irregular	Surgeon Assistant Surgeon	C. Crandell. J. Farrelly.
Simoom	Irregular	Surgeon Assistant Surgeon	E. T. Mortimer. J. Martin.
Slaney	East Indies	Assistant Surgeon in charge.	F. Egan.
Snake	East Indies	Assistant Surgeons in charge.	J. C. Eastcott; R. Grieve, M.D.
Sphinx	East Indies	Surgeon Assistant Surgeon	G. L. King. J. Johnstone, M.D.
Spider	Brazils	Assistant Surgeon in charge.	J. F. Fitz-Gerald.

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Spiteful	West Indies	Surgeons Assistant Surgeons	W. J. Baird; F. W. Davis. C. H. Rason (in charge); W. Graham.
Spitfire	Irregular	Assistant Surgeon in charge.	T. Brisbane, M.D.
Squirrell	Home	Assistant Surgeons in charge.	R. L. B. Head; H. G. Ruby.
Steady	West Indies	Assistant Surgeons in charge.	B. H. M'Curdy; T. Milne, M.D.
Stromboli	Irregular Brazils	Surgeon Assistant Surgeon	G. Banks. A. A. Mullin.
Styx	Irregular West Indies	Surgeon Assistant Surgeon	T. M'Gahan. R. H. T. Gilbert.
Supply	Irregular	Assistant Surgeon in charge.	J. K. Smallhorn.
Surprise	Mediterranean	Surgeon	J. E. Dyas.
Sutlej	Irregular	Surgeon Assistant Surgeons	W. Patrick. B. Gregory; T. H. Atkinson; T. A. Roe, M.D.
Swallow	Irregular East Indies	Assistant Surgeon in charge.	J. B. Nicoll, M.D.
Tartar	Pacific	Surgeon Assistant Surgeons	G. Mason, M.D. W. Dillon; W. J. Inman.
Termagant	Pacific	Surgeon Assistant Surgeon	J. C. Walsh. T. E. Gorges.
Terrible	Irregular	Surgeon Assistant Surgeon	G. I. Willes. D. R. Alcock.
Terror	West Indies	Assistant Surgeon in charge.	G. Curtis.
Topaze	Pacific	Surgeon Assistant Surgeons	C. Forbes, M.D. A. Rattray, M.D.; A. Turnbull, M.D.
Torch	West Coast of Africa	Assistant Surgeon in charge.	C. J. Fennell.
Trafalgar	Home	Surgeon Assistant Surgeons	R. Bernard. E. Waller, M.D.; R. Hague, M.D.; F. Hurley, M.D.; J. Simpson, M.D.
Tribune	Irregular Pacific	Surgeon Assistant Surgeons	R. Irvine, M.D. R. Walker, M.D.; E. B. Bogg, M.D.
Trident	Mediterranean	Surgeon	C. H. Chambers.
Trincomalee	Home	Surgeon	G. V. Macdonogh, M.D.
Urgent	East Indies	Surgeon Assistant Surgeon	T. Breen. R. Ferguson, M.D.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Vesuvius -	Irregular - - / West Indies - -	Surgeon - - / Assistant Surgeons	T. MacCarthy. / D. Alcock; J. C. Grigg.
Victor Emanuel	Mediterranean -	Surgeon - - / Assistant Surgeons	E. Nolloth. / A. Robertson; F. B. Hurley, M.D.
Victoria and Albert.	Home - - -	Surgeon - - / Deputy Inspector General.	W. W. Baynes. / J. Minter.
Victory - -	Home - - -	Surgeon - - / Assistant Surgeons	H. Edmonds, M.D. / T. M'Carthy, M.D.; F. L. Graham; W. D. Smyth, M.D.; B. Ninnis, M.D.
Vigilant - -	Home - - -	Surgeon - -	F. L. Leonard.
Vindictive -	Irregular - -	Assistant Surgeon in charge.	A. Mullan.
Ditto - Supernumerary Marines for Ascension.	Irregular - -	Assistant Surgeon in charge.	A. B. Johnson.
Virago - -	Home - - -	Surgeon - - / Assistant Surgeon	J. T. Gabriel. / H. Macdonnell.
Vulcan - -	East Indies - -	Surgeon - - / Assistant Surgeons	J. Mitchell, M.D. / S. Little; G. Mair.
Wanderer -	Mediterranean - -	Surgeon - -	L. H. J. Hayne, M.D.
Warrior - -	Home - - -	Surgeon - - / Assistant Surgeons	S. S. D. Wells. / W. J. Asslin; E. W. Coleman, M.D.
Wellesley -	Home - - -	Surgeons - -	J. Davidson, M.D.; C. T. S. Kevern.
Weser - -	Mediterranean -	Assistant Surgeon in charge.	J. F. Kynsey.
Winchester -	Home - - -	Surgeon - -	W. B. Dalby, M.D.
Wrangler -	West Coast of Africa	Assistant Surgeon in charge.	C. F. Williams.
Wye - -	West Coast of Africa	Assistant Surgeons in charge.	E. Mulcahy; R. F. Bridgford.
Zebra - -	Irregular - - / West Coast of Africa	Surgeon - - / Assistant Surgeon	T. Craig. / J. O'Brien.